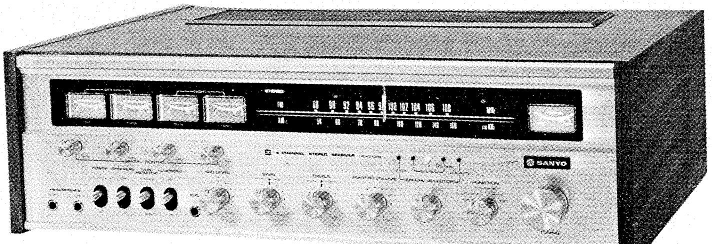
SANYO

SANYO
4 CHANNEL
STEREO RECEIVER
DCX 3300KB
SERVICE MANUAL



SPECIFICATIONS

GENERAL

Transistors	2SK41 x 1, 2SC668 x 1, 2SC930 x 4 2SC536 x 4, 2SC929 x 1, 2SC693 x 18 2SC537 x 2, 2SA608 x 2
IC amplifiers	LA1201 x 1, LA3301 x 1, STK-024 x 4
Diodes	1S188 x 19, DS-442 x 1, DS-430 x 4 WZ-094 x 1, DS-118 x 4
Power source	AC 220V - 110V 50/60 Hz
Power consumption	175 watts
Dimensions (approx.)	21-1/4"(W) x 15-3/4"(D) x 6"(H)
Weight (approx.)	24 lbs

AUDIO SECTION

Continuous power output (at 8 ohms 1% T.H.D.)	30W/ch x 2 . . . 2 channel operation 20W/ch x 4 . . . 4 channel operation
Frequency response (1W power output)	80 - 120,000 Hz ±3 dB
Hum and noise (volume position:	
: at rated power	AUX, PHONO, TAPE . . . . . 30 mV
: at min.	AUX, PHONO, TAPE 3.0mV
Power bandwidth	80 - 10,000 Hz (at 5% T.H.D.)
Input sensitivity/ impedance	AUX . . . . . 200mV/100K ohms PHONO . . . . . 2.5mV/50Kohms PLAYBACK RCA . . . . . 200mV/70K ohms DIN . . . . . 200mV/70K ohms
Record output	RCA. . . . . 110mV/6.8Kohms DIN . . . . . 50mV at 50K ohms terminate
Bass control	100 Hz -10 - +8 dB
Treble control	10,000 Hz -10 - +8 dB
Loudness control (volume position: at -30 dB)	100 Hz + 8 dB 10,000 Hz + 3 dB
S/N	AUX . . . . . 60 dB PHONO . . . . . 60 dB TAPE . . . . 60 dB MIC . . . . 45 dB

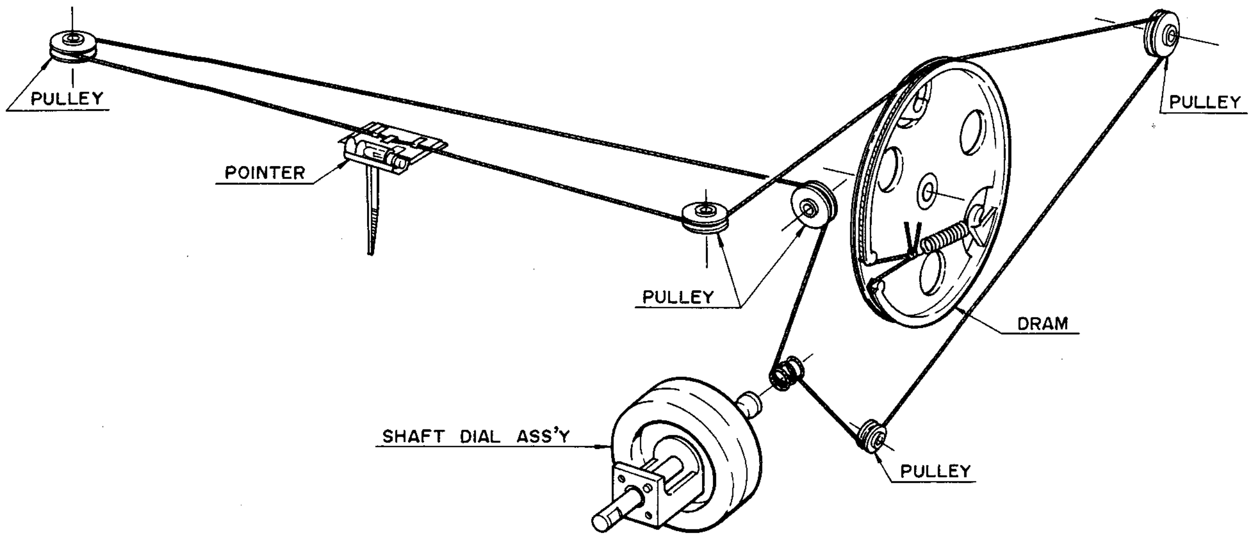
FM TUNER SECTION

Frequency range	88 MHz - 108 MHz
IF	10.7 MHz
Aerial impedance	300 ohms balanced
IHF sensitivity	5μV
Selectivity (IHF)	40 dB
Image rejection	45 dB
IF rejection	70 dB
AM suppression	45 dB
S/N	45 dB (stereo), 55 dB (mono)
Stereo separation	30 dB
SCA rejection	50 dB
Capture ratio	4 dB
Spurious response	70 dB

AM TUNER SECTION

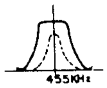
Frequency range	535 kHz - 1,605 kHz
IF	455 kHz
20 dB S/N sensitivity	250μV/m
Image rejection	35 dB
IF rejection	35 dB
S/N	43 dB
Selectivity	23 dB (1 ACA) 40 dB (2 ACA)

DIAL CORD STRING



ADJUSTMENT

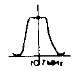
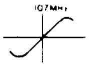
AM ADJUSTMENT

Step	Adjusting circuit	Connections		SG. frequency	Position of tuning dial	Adjustment	V.T.V.M. Oscilloscope
		Input	Output				
1	IF	Connect sweep generator to VC4.	Connect oscilloscope to test point TP7.	455 KHz (400Hz 30% modulation)	Near max. capacity of VC. at position with no unrequired signal	AM 1st 9-20970 (Red, Blue) AM 2nd 9-20980 (Non adj.)	
2	RF	Connect standard loop aerial to output terminals of SG. Place reciever 2 feet from loop aerial.	Connect V.T.V.M. to speaker terminals.	600 KHz (400Hz, 30% modulation)	600 KHz	AM ANT 9-21081 AM OSC 9-20690 (Red)	Max.
3				1400 KHz (400Hz, 30% modulation)	1400 KHz	TC4 TC5	Max.
4	Repeat adjustments.						

PREPARE

1. Variable capacitor completely closed.
2. Set the dial pointer to very left line dial scale.
3. Connect sweep generator. SG, V.T.V.M. and oscilloscope.
4. Function switch to "AM".
5. Use a screwdriver with plastic grip for all adjustments.

FM ADJUSTMENT

Step	Adjusting circuit	Connections		SG frequency	Position of tuning dial	Adjustment	V.T.V.M. Oscilloscope
		Input	Output				
1	IF	Connect sweep generator to test point TP1 through 0.01μF	Connect oscilloscope to test point TP2.	10.7 MHz (none modulation)	Near max. capacity of VC. at position with no unrequired signal	FM 1st 9-21040 (Violet) 9-21050 (Orange) FM 2nd 9-21080 9-21090 FM 3rd 9-21070 9-21080	
2	Ratio Det.		Connect oscilloscope to test point TP3.			FM DET 9-20850 (Pink) 9-20860 (Blue)	
3	RF	Connect FM SG. to FM AERIAL terminals.	Connect V.T.V.M. to speaker terminal.	90 MHz (400Hz, 30% modulation)	90 MHz	FM AERIAL 9-21090 FM OSC 9-20460 FM RF 9-20330	Max.
4				106 MHz (400Hz, 30% modulation)	106 MHz	TC1 TC2 TC3	Max.
5	Repeat adjustments.						

PREPARE

1. Variable capacitor completely closed.
2. Set the dial pointer to very left line of dial scale.
3. Connect sweep generator, FM SG, V.T.V.M. and oscilloscope.
   FM aerial input impedance is 300 ohm.
4. Function switch to "FM"
5. Use a screwdriver with plastic grip for all adjustments.

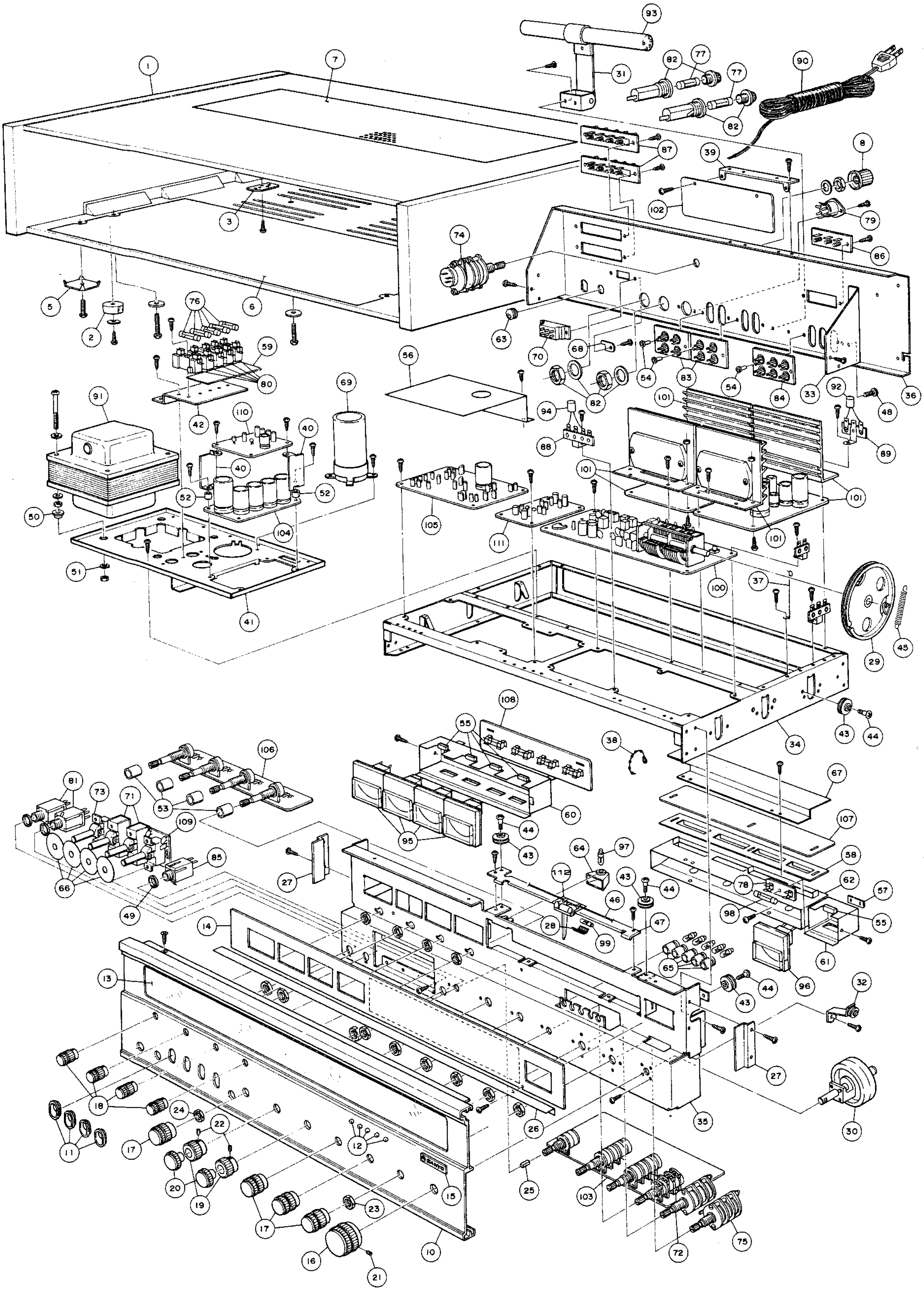
FM MPX ADJUSTMENT

Step	Adjusting circuit	Connections		Position of tuning dial	Adjustment	V.T.V.M.
		Input	Output			
1	38 KHz	Connect FM stereo SG to FM aerial terminals. 19KHz signal ON. Main channel, sub channel signal ON. Add 1000Hz signal from L Ch.	Connect V.T.V.M. to test point TP6.	Near max. capacity of VC. at position with no unrequired signal.	38KHz 9-20210 (Black) 9-20220 (White)	Max.
2	FM stereo signal separation		Connect V.T.V.M. to R speaker terminal.			
3		Connect FM stereo SG to FM aerial terminals. 19KHz signal ON. Main channel, sub channel signal ON. Add 1000Hz signal from R Ch.	Connect V.T.V.M. to L speaker terminal.		38KHz 9-20210 (Black)	Min.
4	Repeat steps 2~3. Set at position with max. channel separation.					

PREPARE

1. Variable capacitor completely closed.
2. Connect FM stereo SG. and V.T.V.M.
3. Function switch to "STREO AFC".
4. Use a screwdriver with plastic grip for all adjustments.

EXPLODED VIEW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PARTS LIST

Key No.	Part No.	Description	Q'ty
PACKING			
	4 2449 20230	Aerial FM	1
	131 6 1139 36404	Box, Corrugate Exp.	1
	131 6 2119 00570	Bas, Polyethylene	1
	131 6 2719 10400	Bag, Fan	1
	131 6 3009 17450	Pad	2
	131 6 4119 35200	Explanetory Booklet	1
	131 6 4559 10100	Manufacturing No.	1
CABINET			
1	131 2 1101 20803	Cabinet	1
2	131 2 1804 10401	Leg, Rubber	4
3	131 2 3101 12501	Metal Mount	1
4	131 2 3201 11600	Angle, Reinf	2
	131 2 3901 10200	Staple	10
5	131 2 4203 15200	Washer	4
6	131 2 6101 16700	Plate, Shield	1
7	131 2 6201 12600	Gril	1
		Screw, Pan Hd, 4 x 20	7
		Screw, Truss Hd. Tapping 3 x 8	15
		Screw, Truss Hd. Tapping 4 x 12	4
		Washer 4.2 x 12 x 1	4
		Washer 4.2 x 16 x 1.6	3
APPEARANCE			
8	131 0 1001 19200	Knob Ass'y	1
9	131 0 1016 17800	Panel Decorate Ass'y	1
10	131 2 1203 22605	├Panel, Control	1
11	131 2 6113 11700	├Shelter, Lever Switch	4
12	131 2 1504 10900	├Plate, Sign Lamp	5
13	131 2 1205 10800	└Decorate, Plate Dial	1
112	131 0 3011 13700	Pointer Ass'y	1
14	131 2 1201 23601	Plate Dial	1
15	131 2 1301 13700	Badge	1
16	131 2 1601 22500	Knob, Tuning	1
17	131 2 1601 22600	Knob, Selector	4
18	131 2 1601 22700	Knob, Lever	4
19	131 2 1601 22800	Knob, Bass, Treble	2
20	131 2 1601 22900	Knob, Bass, Treble	2
21	131 2 4201 12400	Screw, Tuning	1
22	131 2 4201 12500	Screw, Bass, Treble	2
23	131 2 4202 12100	Nut, Function	1
24	131 2 4202 12400	Nut, Mic Volume	1
25	131 2 4208 15500	Spacer, Mic Volume	1
26	131 2 6110 17900	Shelter Light, Dial	1
27	131 2 6110 18000	Shelter Light, Dial R,L	2
28	131 2 6308 12400	Filter, Pointer Lamp	1
		Screw, Button Hd. 3 x 8	7
		Screw, Flat Hd. 3 x 5	3
CHASSIS			
29	131 0 3002 10201	Drum Ass'y	1
30	131 0 3003 14400	Shaft Dial Ass'y	1
31	131 0 3008 11700	Support Aerial Ass'y	1
32	131 0 3020 01200	Pulley Ass'y	1
33	131 2 3101 21200	Metal Mount	1
34	131 2 3301 19200	Chassis	1
35	131 2 3305 15000	Panel, Front	1
36	131 2 3306 16401	Panel, Rear	1
37	131 2 3608 10800	Cramp Wire	2
38	131 2 3608 11300	Cramp Wire	10
39	131 2 3614 13800	Mount, Equalizer PCB	1
40	131 2 3614 14600	Mount, Power, Protector PCB	2
41	131 2 3617 12100	Metal, Mount, Trans	1
42	131 2 3701 15500	Mount Electric Part	1
43	131 2 4107 10300	Pulley	4
44	131 2 4108 10300	Spindle, Pulley	4
45	131 2 4111 00200	Spring, Rope	1
46	131 2 4112 10200	Rope 0.5	1
47	131 2 4120 10500	Slide, Rail, Pointer	1
48	131 2 4201 12701	Screw, Ground Terminal	1
49	131 2 4203 14200	Washer, Mic Jack	1
50	131 2 4203 15300	Washer, Trans	4
51	131 2 4203 15400	Washer, Trans	4

Key No.	Part No.	Description	Q'ty
CHASSIS			
52	131 2 4208 13500	Spacer, Mount PCB	2
53	131 2 4208 15400	Spacer, Level Volume	4
54	131 2 4221 00100	Rivet	7
55	131 2 5206 11300	Mold Plane 5 x 18 x 5t	5
56	131 2 6101 14701	Plate Shield, SQ PCB	1
57	131 2 6107 13900	Plate Sever, PL Holder	1
58	131 2 6107 15800	Plate Sever, Dial Lamp	1
59	131 2 6107 17300	Plate Sever, Elect. Part	1
60	131 2 6110 17700	Shelter Light, Level Meter	1
61	131 2 6110 17800	Shelter Light, Tuning Meter	1
62	131 2 6110 19700	Shelter Light, Dial	1
63	131 2 6111 11300	Bushing	1
64	131 2 6111 11500	Bushing, Stereo Ind.	1
65	131 2 6111 11600	Bushing, 2/4 Chl.	5
66	131 2 6113 11400	Shelter, Power SW, Lever SW	4
67	131 2 6113 14600	Shelter	1
68	131 2 7104 00101	Plate Pad, Switch	1
		Screw, Pan Hd 3 x 6	10
		Screw, Pan Hd. 3 x 8	2
		Screw, Pan Hd. Tapping 2.6 x 10	5
		Screw, Pan Hd. Tapping 3 x 5	4
		Screw, Pan Hd. Tapping 3 x 8	68
		Screw, Pan Hd. Tapping 3 x 16	2
		Screw, Pan Hd. Tapping 3.5 x 8	14
		Hex. Nut 4mm	4
		Washer 4.2 x 12 x 1	4
ELECTRICAL PARTS			
69	4 2239 20371	Electrolytic Capacitor 2200µF 63V	1
70	4 2319 21530	Switch, Slide	1
71	4 2319 22344	Switch, Lever 12P, Tape mon. SP SW	2
72	4 2319 22620	Switch, Rotary, 2/4 Chl.	1
73	4 2319 22840	Switch, Lever, Power	1
74	4 2319 23310	Switch, Rotary, Mode	1
75	4 2319 23320	Switch, Rotary, Function	1
76	4 2349 20580	Fuse 3.15 A, Secondary	5
77	4 2349 20620	Fuse, Protector	2
78	4 2359 20160	Fuse Holder, Tuning Lamp	1
79	4 2359 20190	Socket, 5P DIN	1
80	4 2359 21020	Socket	5
81	4 2359 21080	Jack, Headphone	2
82	4 2359 21110	Fuse Holder, Protector	2
83	4 2359 21230	Socket, Phono 4P, REC, Tape PB	2
84	4 2359 21250	Socket, Phono 6P	1
85	4 2359 21410	Mic Jack	1
86	4 2379 20020	Terminal, Aerial 3P	1
87	4 2379 20080	Terminal 4P	2
88	4 2379 20130	Terminal Lug 1-3PL	1
89	4 2379 20140	Terminal Lug 2P	1
90	4 2439 20521	Power Cord	1
91	4 2519 23050	Power Trans	1
92	4 2539 20170	Choke Coil, L1002	1
93	4 2579 21081	Aerial Coil MW	1
94	4 2659 20190	Multiplex Coil, L1001	1
95	4 5119 20291	Meter, VU	4
96	4 5119 20304	Meter, Tuning	1
97	4 6129 20153	Pilot Lamp, Stereo Ind.	1
98	4 6129 20280	Pilot Lamp, Tuning Meter	1
99	4 6129 20310	Pilot Lamp, Pointer	1
		CAPACITORS	
C1005		Ceramic 200pF 50V ±10%	1
C1004		Mylar 0.068µF 50V ±20%	1
C1002,1003		MP 0.01µF 250V ±20%	2
C1006,1007		Ceramic 0.04µF 50V +80 -20%	2
		RESISTORS	
R1004,1005		Carbon 220 1/4W ±10%	2
R1001		Carbon 820 1/4W ±10%	1
R1002,1003		Carbon 47K 1/4W ±10%	2
R1006,1007 1008,1009		Oxside Metal Film 0.12Ω1W ±10%	4

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

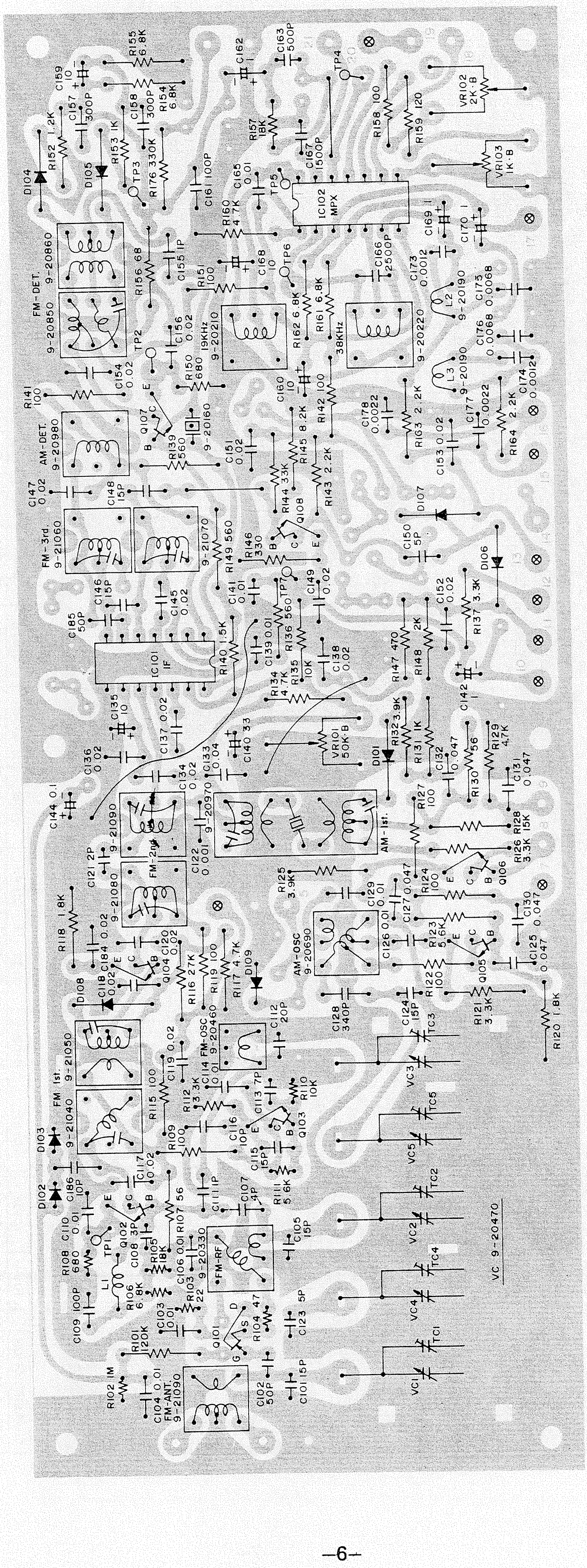
PARTS LIST

Key No.	Part No.	Description	Q'ty
RF, IF, MPX P.C.B. ASSY			
100	131 0 4001 40304	RF, IF, MPX PCB Ass'y	1
	4 2229 23450	Potentiometer B-50K, Bias Adjust	1
	4 2229 23580	VR 2K-B Level Adjust	1
	4 2249 20480	Variable Capacitor	1
	4 2279 20160	Ceramic Filter 10.7MHz	1
	4 2379 21120	Terminal, Test Point	7
	4 2539 20180	IF Trap	1
	4 2569 20850	Voice IF Trans	1
	4 2569 20860	Voice IF Trans	1
	4 2569 20970	IF Trans AM-1st	1
	4 2569 20980	IF Trans AM-Det.	1
	4 2569 21040	IF Trans FM-1st.	1
	4 2569 21050	IF Trans FM-1st.	1
	4 2569 21060	IF Trans FM-3rd.	1
	4 2569 21070	IF Trans FM-3rd.	1
	4 2569 21080	IF Trans FM-2nd.	1
	4 2569 21090	IF Trans FM-2nd.	1
	4 2579 21090	Aerial Coil, FM	1
	4 2589 20460	OSC Coil FM	1
	4 2589 20690	OSC Coil AM	1
	4 2599 20330	RF Coil FM	1
	4 2659 20190	Multiplex Coil	2
	4 2659 20210	Multiplex Coil 19KHz	1
	4 2659 20220	Multiplex Coil 38KHz	1
		SEMICONDUCTORS	
Q102	203 5 4510 66840	Transistor 2SC 668N-D-RF	1
Q105	203 5 5100 53640	Transistor 2SC 536 D,E	1
Q106	203 5 5510 92940	Transistor 2SC 929 D,E	1
Q104,108	203 5 5510 93040	Transistor 2SC 930 N-D	2
Q103,107	203 5 5510 93050	Transistor 2SC 930 E	2
Q101	203 5 6500 04160	Transistor 2SK 41 F	1
D101,102 103,104 105,106 107	202 5 9110 18820	Diode 1S188FM1	7
D108	205 5 9040 44210	Diode DS-442	1
IC101	206 5 0081 20122	IC LA 1201 B-H	1
IC102	206 5 0673 30110	IC LA 3301	1
		CAPACITORS	
C111,155		Ceramic 1pF 50V ±0.25pF	2
C121		Ceramic 2pF 50V ±0.25pF	1
C108		Ceramic 3pF 50V ±0.25pF	1
C107		Ceramic 4pF 50V ±0.25pF	1
C150		Ceramic 5pF 50V ±0.25pF	1
C123		Ceramic 5pF 50V ±0.5pF	1
C113		Ceramic 7pF 50V ±0.25pF	1
C116		Ceramic 10pF 50V ±5%	1
C186		Ceramic 10pF 50V ±5%	1
C115,146, 148		Ceramic 15pF 50V ±5%	3
C124		Ceramic 15pF 50V ±5%	1
C101,105		Ceramic 15pF 50V ±10%	2
C112		Ceramic 20pF 50V ±5%	1
C102,185		Ceramic 50pF 50V ±10%	2
C109,161		Ceramic 100pF 50V ±10%	2
C157,158		Ceramic 300pF 50V ±10%	2
C122		Mylar 0.001μF 50V ±20%	1
C173,174		Mylar 0.0012μF 50V ±20%	2
C177,178		Mylar 0.0022μF 50V ±20%	2
C175,176		Mylar 0.0068μF 50V ±20%	2
C126,129, 139,141		Mylar 0.01μF 50V ±20%	4
C125,127 130,131 132		Mylar 0.047μF 50V ±20%	5
C135,159, 160,168		Electrolytic 10μF 10V	4
C140		Electrolytic 33μF 10V	1
C128		Styrol 340pF 35V ±5%	1
C163		Styrol 820pF 35V ±10%	1
C167		Styrol 1500pF 35V ±10%	1
C166		Styrol 2500pF 35V ±10%	1
C165		Styrol 10000pF 35V ±10%	1
C144		Alsicon 0.1μF 10V ±20%	1

Key No.	Part No.	Description	Q'ty
RF, IF,MPX P.C.B. ASSY			
C142,162 169,170		Alsicon 1μF 10V ±20%	4
C103,104 106,110 114		Ceramic 0.01μF 25V +80-20%	5
C118,119 120,117 134,136 137,138 151,145 147,149 152,153 154,156 184		Ceramic 0.02μF 25V +80-20%	17
C133		Ceramic 0.04μF 25V +80-20%	1
		RESISTORS	
R103		Carbon 22Ω 1/4W ±10%	1
R104		Carbon 47Ω 1/4W ±10%	1
R107,130		Carbon 56Ω 1/4W ±10%	2
R156		Carbon 68Ω 1/4W ±10%	1
R109,115 119,122 124,127 141,142 151,158		Carbon 100Ω 1/4W ±10%	10
R159		Carbon 120Ω 1/4W ±10%	1
R146		Carbon 330Ω 1/4W ±10%	1
R147		Carbon 470Ω 1/4W ±10%	1
R136,139 149		Carbon 560Ω 1/4W ±10%	3
R108		Carbon 680Ω 1/4W ±10%	1
R150		Carbon 680Ω 1/4W ±10%	1
R131,153		Carbon 1KΩ 1/4W ±10%	2
R152		Carbon 1.2KΩ 1/4W ±10%	1
R140		Carbon 1.5KΩ 1/4W ±10%	1
R118,120		Carbon 1.8KΩ 1/4W ±10%	2
R148		Carbon 2KΩ 1/4W ±10%	1
R143,163 164		Carbon 2.2KΩ 1/4W ±10%	3
R169		Carbon 2.7KΩ 1/4W ±10%	1
R112		Carbon 3.3KΩ 1/4W ±10%	1
R121,126 137		Carbon 3.3KΩ 1/4W ±10%	3
R125,132		Carbon 3.9KΩ 1/4W ±10%	2
R117,129 134,160		Carbon 4.7KΩ 1/4W ±10%	4
R111		Carbon 5.6KΩ 1/4W ±10%	1
R123		Carbon 5.6KΩ 1/4W ±10%	1
R106		Carbon 6.8KΩ 1/4W ±10%	1
R154,155 161,162		Carbon 6.8KΩ 1/4W ±10%	4
R145		Carbon 8.2KΩ 1/4W ±10%	1
R110		Carbon 10KΩ 1/4W ±10%	1
R135		Carbon 10KΩ 1/4W ±10%	1
R128		Carbon 15KΩ 1/4W ±10%	1
R105,157		Carbon 18KΩ 1/4W ±10%	2
R116		Carbon 27KΩ 1/4W ±10%	1
R144		Carbon 33KΩ 1/4W ±10%	1
R101		Carbon 120KΩ 1/4W ±10%	1
R102		Carbon 1MΩ 1/4W ±10%	1

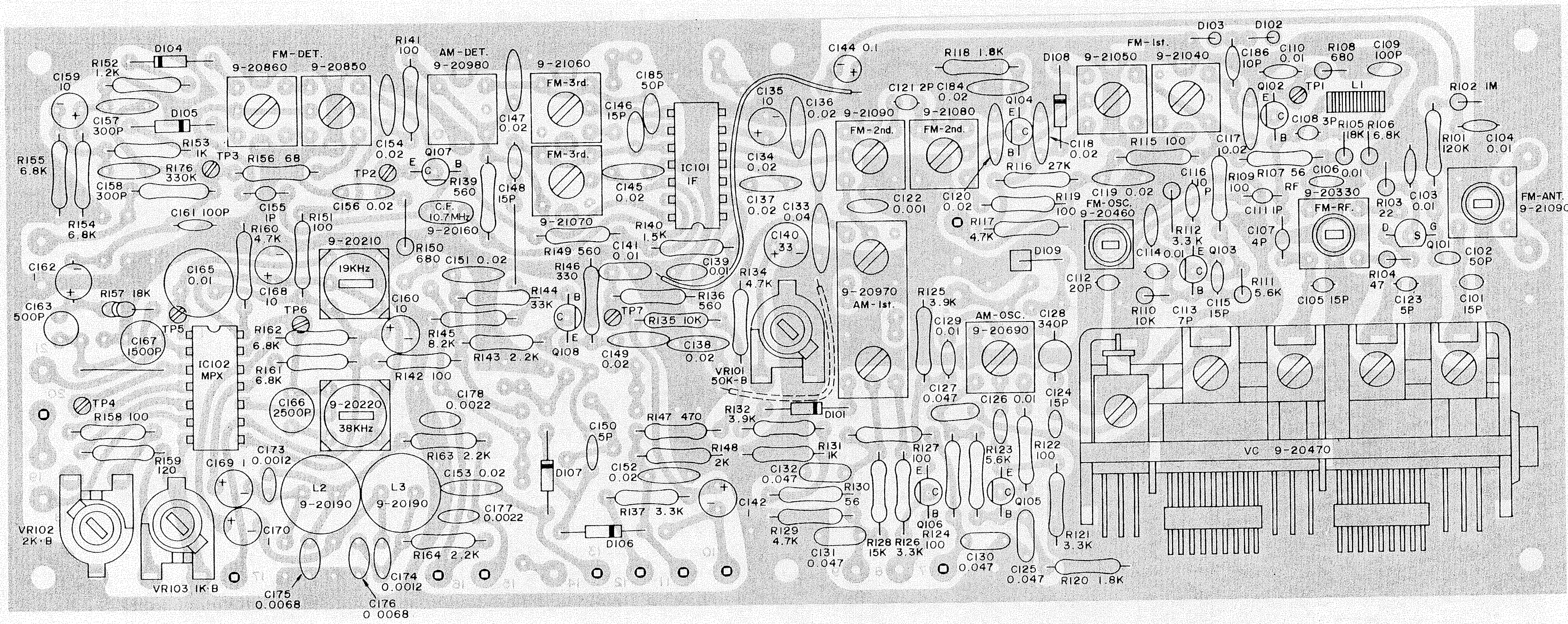
NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

RF, IF, MPX. P.C.B. BOTTOM VIEW


IC101 IF
IC102 MPX
FM-ANT. 9-21090
FM-RF 9-20330
FM 1st 9-21040
FM 1st 9-21050
FM-OSC 9-20460
FM-2nd 9-21080
9-21090
9-20970
AM-1st
AM-OSC 9-20690
FM-3rd 9-21060
9-21070
AM-DET. 9-20980
9-20160
19KHz 9-20210
38KHz
FM-DET. 9-20850 9-20860
9-20220
L2 9-20190
L3 9-20190
VR101 50K-B
VR102 2K-B
VR103 1K-B
VC 9-20470
VC1
VC2
VC3
VC4
VC5
TC1
TC2
TC3
TC4
TC5
TP1
TP2
TP3
TP4
TP5
TP6
TP7
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
D101
D102
D103
D104
D105
D106
D107
D108
D109
L1
R101 120K
R102 1M
R103 22
R104 47
R105 18K
R106 6.8K
R107 56
R108 680
R109 100
R110 10K
R111 5.6K
R112 3.3K
R115 100
R116 27K
R117 4.7K
R118 1.8K
R119 100
R120 1.8K
R121 3.3K
R122 100
R123 5.6K
R124 100
R125 3.9K
R126 3.3K
R127 100
R128 15K
R129 4.7K
R130 56
R131 1K
R132 3.9K
R134 4.7K
R135 10K
R136 560
R137 3.3K
R139 560
R140 1.5K
R141 100
R142 100
R143 2.2K
R144 33K
R145 8.2K
R146 330
R147 470
R148 2K
R149 560
R150 680
R151 100
R152 1.2K
R153 1K
R154 6.8K
R155 6.8K
R156 68
R157 18K
R158 100
R159 120
R160 4.7K
R161 6.8K
R162 6.8K
R163 2.2K
R164 2.2K
R176 330K
C101 15P
C102 50P
C103 0.01
C104 0.01
C105 15P
C106 0.01
C107 4P
C108 3P
C109 100P
C110 0.01
C111 1P
C112 20P
C113 7P
C114 0.01
C115 15P
C116 10P
C117 0.02
C118 0.02
C119 0.02
C120 0.02
C121 2P
C122 0.001
C123 5P
C124 15P
C125 0.047
C126 0.01
C127 0.047
C128 340P
C129 0.01
C130 0.047
C131 0.047
C132 0.047
C133 0.04
C134 0.02
C135 10
C136 0.02
C137 0.02
C138 0.02
C139 0.01
C140 33
C141 0.01
C142 1
C144 0.1
C145 0.02
C146 15P
C147 0.02
C148 15P
C149 0.02
C150 5P
C151 0.02
C152 0.02
C153 0.02
C154 0.02
C155 1P
C156 0.02
C157 300P
C158 300P
C159 10
C160 10
C161 100P
C162 1
C163 500P
C165 0.01
C166 2500P
C167 1500P
C168 10
C169 1
C170 1
C173 0.0012
C174 0.0012
C175 0.0068
C176 0.0068
C177 0.0022
C178 0.0022
C184 0.02
C185 50P
C186 10P

CLASSIFICATION	IC101	IC102	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	D101, D108	D102~D107	D109
	LA1201	LA3300	2SK41	2SC668	2SC930	2SC930	2SC536	2SC929	2SC930	2SC930	DS-442	1S188 FM1	1S553
RANK			F	D, E	D, E	D	D, E	D, E	D, E	D			

RF, IF, MPX. P.C.B. TOP VIEW


FM-DET.
9-20860
9-20850
AM-DET.
9-20980
9-21060
FM-3rd.
9-21070
IC101 IF
IC102 MPX
FM-2nd.
9-21090
9-21080
FM-1st.
9-21050
9-21040
FM-ANT.
9-21090
FM-RF.
9-20330
FM-OSC.
9-20460
AM-OSC.
9-20690
9-20970 AM-1st.
VC 9-20470
C.F. 10.7MHz 9-20160
9-20210 19KHz
9-20220 38KHz
L2 9-20190
L3 9-20190
VR101 50K-B
VR102 2K-B
VR103 1K-B
TP1
TP2
TP3
TP4
TP5
TP6
TP7
L1
D101
D102
D103
D104
D105
D106
D107
D108
D109
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
R101 120K
R102 1M
R103 22
R104 47
R105 18K
R106 6.8K
R107 56
R108 680
R109 100
R110 10K
R111 5.6K
R112 3.3K
R115 100
R116 27K
R117 4.7K
R118 1.8K
R119 100
R120 1.8K
R121 3.3K
R122 100
R123 5.6K
R124 100
R125 3.9K
R126 3.3K
R127 100
R128 15K
R129 4.7K
R130 56
R131 1K
R132 3.9K
R134 4.7K
R135 10K
R136 560
R137 3.3K
R139 560
R140 1.5K
R141 100
R142 100
R143 2.2K
R144 33K
R145 8.2K
R146 330
R147 470
R148 2K
R149 560
R150 680
R151 100
R152 1.2K
R153 1K
R154 6.8K
R155 6.8K
R156 68
R157 18K
R158 100
R159 120
R160 4.7K
R161 6.8K
R162 6.8K
R163 2.2K
R164 2.2K
R176 330K
C101 15P
C102 50P
C103 0.01
C104 0.01
C105 15P
C106 0.01
C107 4P
C108 3P
C109 100P
C110 0.01
C111 1P
C112 20P
C113 7P
C114 0.01
C115 15P
C116 10P
C117 0.02
C118 0.02
C119 0.02
C120 0.02
C121 2P
C122 0.001
C123 5P
C124 15P
C125 0.047
C126 0.01
C127 0.047
C128 340P
C129 0.01
C130 0.047
C131 0.047
C132 0.047
C133 0.04
C134 0.02
C135 10
C136 0.02
C137 0.02
C138 0.02
C139 0.01
C140 33
C141 0.01
C142 1
C144 0.1
C145 0.02
C146 15P
C147 0.02
C148 15P
C149 0.02
C150 5P
C151 0.02
C152 0.02
C153 0.02
C154 0.02
C155 1P
C156 0.02
C157 300P
C158 300P
C159 10
C160 10
C161 100P
C162 1
C163 500P
C165 0.01
C166 2500P
C167 1500P
C168 10
C169 1
C170 1
C173 0.0012
C174 0.0012
C175 0.0068
C176 0.0068
C177 0.0022
C178 0.0022
C184 0.02
C185 50P
C186 10P

CLASSIFICATION	IC101	IC102	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	D101, D108	D102~D107	D109
	LA1201	LA3300	2SK41	2SC668	2SC930	2SC930	2SC536	2SC929	2SC930	2SC930	DS-442	IS188 FM1	IS553
RANK			F	D, E	D, E	D	D, E	D, E	D, E	D			

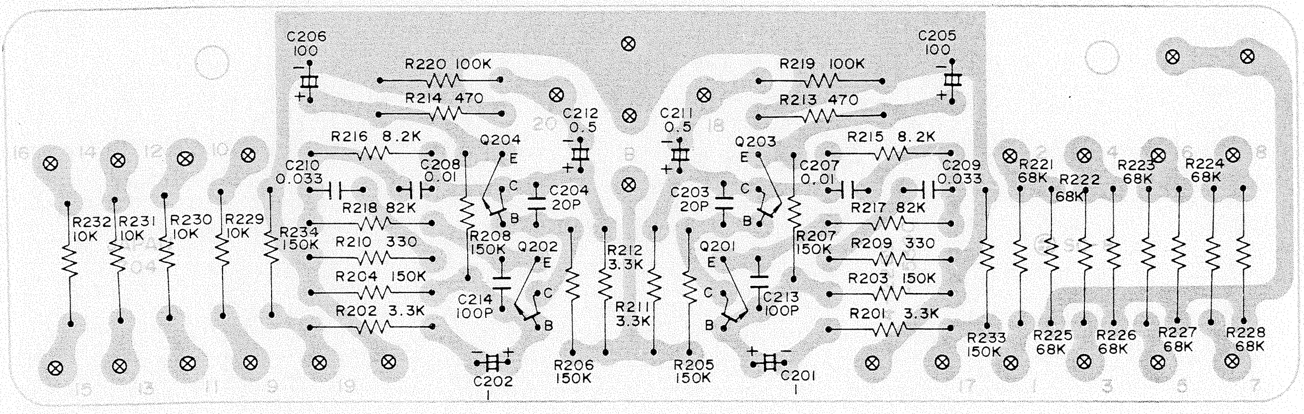
PARTS LIST

Key No.	Part No.	Description	Q'ty
EQUALIZER P.C.B. ASSY			
102	131 0 4001 47900	Equalizer PCB Assy	1
		CAPACITORS	
C203,204		Ceramic 20pF 50V ±10%	2
C213,214		Ceramic 100pF 50V ±10%	2
C207,208		Mylar 0.01μF 50V ±20%	2
C209,210		Mylar 0.033μF 50V ±20%	2
C205,206		Electrolytic 100μF 10V	2
C211,212		Alsicon 0.5μF 25V ±20%	2
C201,202		Alsicon 1μF 25V ±20%	2
		RESISTORS	
R209,210		Carbon 330Ω 1/4W ±10%	2
R213,214		Carbon 470Ω 1/4W ±10%	2
R211,212 201,202		Carbon 3.3KΩ 1/4W ±10%	4
R215,216		Carbon 8.2KΩ 1/4W ±10%	2

Key No.	Part No.	Description	Q'ty
EQUALIZER P.C.B. ASSY			
R229,230 231,232		Carbon 10KΩ 1/4W ±10%	4
R225,226 227,228 221,222 223,224		Carbon 68KΩ 1/4W ±10%	8
R217,218		Carbon 82KΩ 1/4W ±10%	2
R219,220		Carbon 100KΩ 1/4W ±10%	2
R203,204 205,206 233,234 207,208		Carbon 150KΩ 1/4W ±10%	8
		SEMICONDUCTORS	
Q201,202 203,204	203 5 5100 69369	Transistor 2SC693 F-L, G-L	4

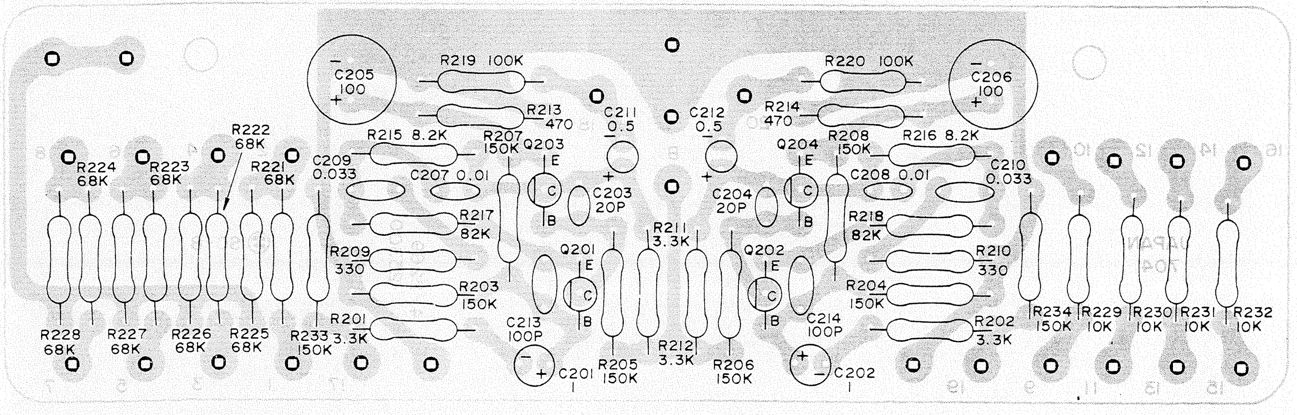
NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

EQUALIZER P.C.B. BOTTOM VIEW



C206
100
R220 100K
R214 470
C205
100
R219 100K
R213 470
R216 8.2K
Q204
C212
0.5
C211
0.5
Q203
R215 8.2K
C210
0.033
C208
0.01
C204
20P
C203
20P
C207
0.01
C209
0.033
R221
68K
R222
68K
R223
68K
R224
68K
R218 82K
R217 82K
R232
10K
R231
10K
R230
10K
R229
10K
R234
150K
R210 330
R208
150K
Q202
R212
3.3K
Q201
R207
150K
R209 330
R204 150K
R203 150K
R202 3.3K
C214
100P
R211
3.3K
C213
100P
R201 3.3K
R233
150K
R225
68K
R226
68K
R227
68K
R228
68K
C202
1
R206
150K
R205
150K
C201
1
E
C
B

EQUALIZER P.C.B. TOP VIEW



C205
100
R219 100K
R220 100K
C206
100
R213
470
C211
0.5
C212
0.5
R214
470
R222
68K
R215 8.2K
R207
150K
Q203
Q204
R208
150K
R216 8.2K
R224
68K
R223
68K
R221
68K
C209
0.033
C207 0.01
C203
20P
C204
20P
C208 0.01
C210
0.033
R217
82K
R211
3.3K
R218
82K
R209
330
Q201
Q202
R210
330
R203
150K
R204
150K
R228
68K
R227
68K
R226
68K
R225
68K
R233
150K
R201
3.3K
C213
100P
C201
1
R205
150K
R212
3.3K
R206
150K
C214
100P
C202
1
R202
3.3K
R234
150K
R229
10K
R230
10K
R231
10K
R232
10K
E
C
B

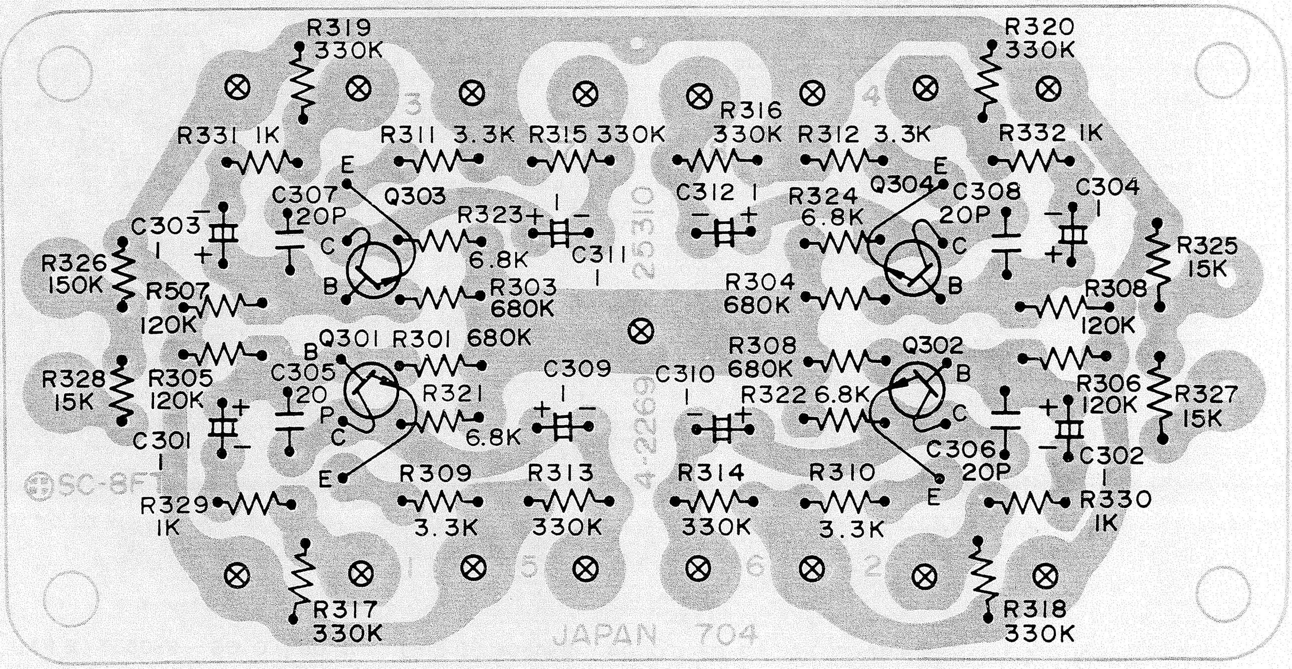
Q201 ~ Q204 2SC693 FL or GL

PARTS LIST

Key No.	Part No.	Description	Q'ty
PRE-2 P.C.B. ASSY			
111	131 0 4001 48100	Pre-2 PCB Assy	1
	CAPACITORS	CAPACITORS	
C305,306 307,308		Ceramic 20pF 50V ±10%	4
C301,302 303,304 309,310 311,312		Alsicon 1μF 25V ±20%	8
		RESISTORS	
R329,330 331,332		Carbon 1KΩ 1/4W ±10%	4
R309,310 311,312		Carbon 3.3KΩ 1/4W ±10%	4
R321,322 323,324		Carbon 6.8KΩ 1/4W ±10%	4
R325,326 327,328		Carbon 15KΩ 1/4W ±10%	4
R305,306 307,308		Carbon 120KΩ 1/4W ±10%	4
R317,318 319,320 313,314 315,316		Carbon 330KΩ 1/4W ±10%	8
R301,302 303,304		Carbon 680KΩ 1/4W ±10%	4
		SEMICONDUCTORS	
Q301,302 303,304	203 5 5100 69369	Transistor 2SC693 FL, GL (W)	4

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

PRE-2 P.C.B. BOTTOM VIEW


R319
330K
R320
330K
R331 1K
R311 3.3K
R315 330K
R316
330K
R312 3.3K
R332 1K
E
C307
20P
Q303
R323
6.8K
C311
C312
R324
6.8K
Q304
C308
20P
C304
C303
R326
150K
R507
120K
R303
680K
R304
680K
R308
120K
R325
15K
B
C
Q301
R301 680K
C309
C310
R308
680K
Q302
R328
15K
R305
120K
C305
20
R321
6.8K
R322 6.8K
R306
120K
R327
15K
C301
C306
20P
C302
R309
3.3K
R313
330K
R314
330K
R310
3.3K
R330
1K
R329
1K
R317
330K
R318
330K
25310
4-2269
SC-8F1
JAPAN 704

Q301 ~ Q304 2SC693 FL or GL

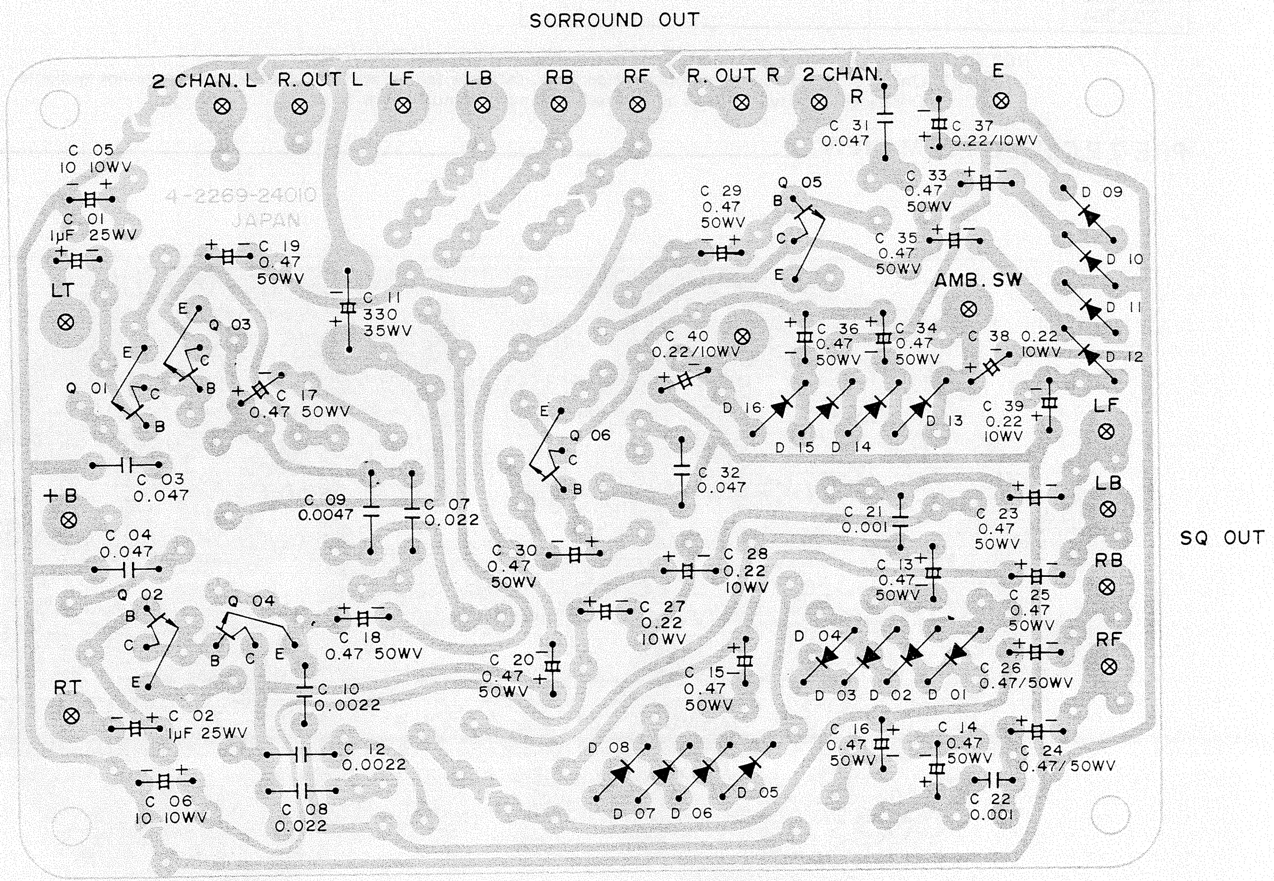
PARTS LIST

Key No.	Part No.	Description	Q'ty
MATRIX P.C.B. ASSY			
105	131 0 4001 32300	Matrix PCB Assy	1
		CAPACITORS	
C21,22		Mylar 0.001μF 50V ±20%	2
C10,12		Mylar 0.0022μF 50V ±20%	2
C09		Mylar 0.0047μF 50V ±20%	1
C07,08		Mylar 0.022μF 50V ±20%	2
C03,04,31 32,		Mylar 0.047μF 50V ±20%	4
C13,14,15 16,17,18 19,20,23 24,25,26 29,30,33 34,35,36		Electrolytic 0.47μF 50V	18
C05,06		Electrolytic 10μF 10V	2
C11		Electrolytic 330μF 35V	1
C27,28,37 38,39,40		Alsicon 0.22μF 10V ±20%	6
C01,02		Alsicon 1μF 25V ±20%	2

Key No.	Part No.	Description	Q'ty
MATRIX P.C.B. ASSY			
		SEMICONDUCTORS	
Q05,06	203 5 5100 53750	Transistor 2SC537 E	2
Q01,02	203 5 5100 69369	Transistor 2SC693 F-L, G-L	2
Q03,04	203 5 7200 60840	Transistor 2SA608D, E, F	2
D09,10,11 12,13,14 15,16	202 5 9110 18820	Diode IS188FM1	8
D01,02,03 04,05,06 07,08	205 5 9020 43011	Diode DS430	8

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

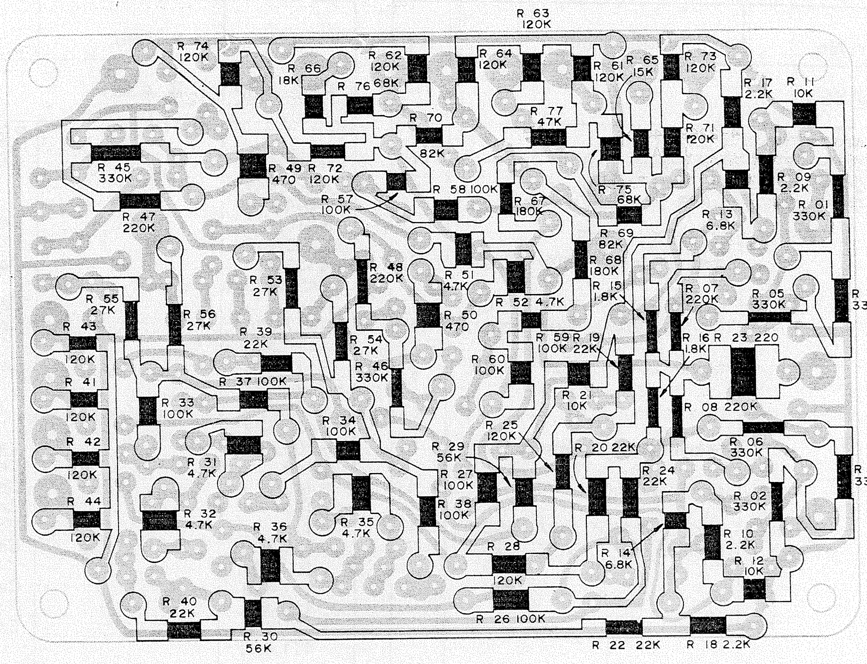
MATRIX P.C.B. BOTTOM VIEW


SORROUND OUT
2 CHAN. L
R. OUT L
LF
LB
RB
RF
R. OUT R
2 CHAN. R
E
4-2269-24010 JAPAN
C 05 10 10WV
C 01 1μF 25WV
C 19 0.47 50WV
C 11 330 35WV
LT
Q 03
Q 01
C 17 0.47 50WV
C 03 0.047
+B
C 04 0.047
C 09 0.0047
C 07 0.022
Q 02
Q 04
C 18 0.47 50WV
C 10 0.0022
RT
C 02 1μF 25WV
C 12 0.0022
C 06 10 10WV
C 08 0.022
C 31 0.047
C 37 0.22/10WV
C 29 0.47 50WV
Q 05
C 33 0.47 50WV
C 35 0.47 50WV
D 09
D 10
D 11
D 12
AMB. SW
C 40 0.22/10WV
C 36 0.47 50WV
C 34 0.47 50WV
C 38 0.22 10WV
D 16
D 15
D 14
D 13
C 39 0.22 10WV
Q 06
C 32 0.047
C 30 0.47 50WV
C 28 0.22 10WV
C 27 0.22 10WV
C 21 0.001
C 13 0.47 50WV
C 23 0.47 50WV
C 25 0.47 50WV
C 20 0.47 50WV
C 15 0.47 50WV
D 04
D 03
D 02
D 01
C 26 0.47/50WV
C 16 0.47 50WV
C 14 0.47 50WV
C 24 0.47/50WV
C 22 0.001
D 08
D 07
D 06
D 05
SQ OUT
E
B
C

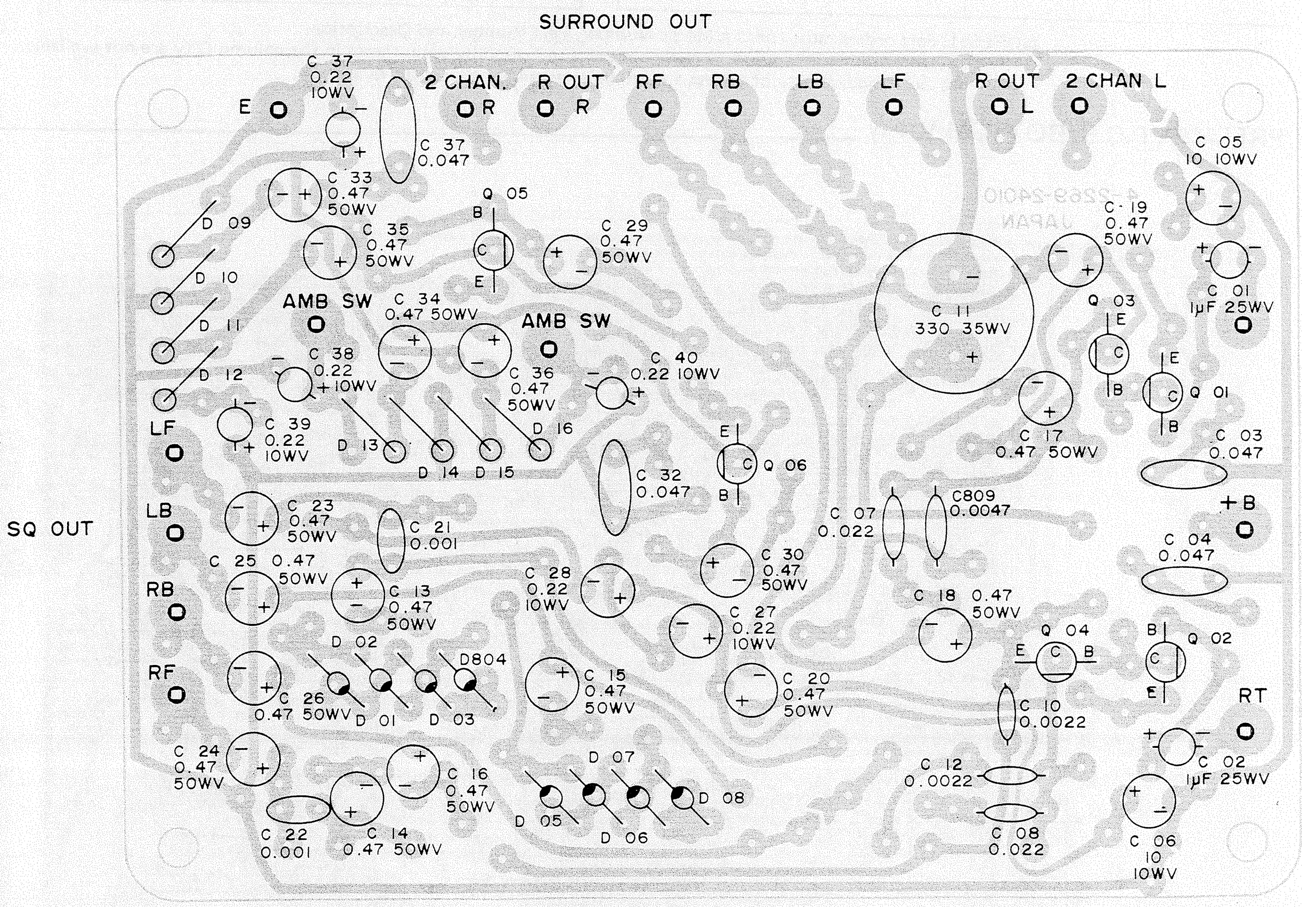
Q 01 , Q 02 2SC693 (FL) · Q 03 , Q 04 2SA608 (D E F) · Q 05 , Q 06 2SC537 (E F)

D 01～D 08 DS-430 · D 09～D 16 IS188 FMI

MATRIX PRINTED RESISTORS


R 63 120K
R 74 120K
R 66 18K
R 62 120K
R 76 68K
R 64 120K
R 61 120K
R 65 15K
R 73 120K
R 17 2.2K
R 11 10K
R 70 82K
R 77 47K
R 71 120K
R 45 330K
R 49 470
R 72 120K
R 57 100K
R 58 100K
R 67 180K
R 75 68K
R 09 2.2K
R 01 330K
R 47 220K
R 13 6.8K
R 69 82K
R 68 180K
R 53 27K
R 48 220K
R 51 4.7K
R 55 27K
R 56 27K
R 52 4.7K
R 15 1.8K
R 07 220K
R 05 330K
R 03 330K
R 43 120K
R 39 22K
R 50 470
R 54 27K
R 59 100K
R 19 22K
R 16 1.8K
R 23 220
R 41 120K
R 37 100K
R 46 330K
R 60 100K
R 33 100K
R 21 10K
R 08 220K
R 42 120K
R 34 100K
R 25 120K
R 06 330K
R 31 4.7K
R 29 56K
R 20 22K
R 24 22K
R 04 330K
R 27 100K
R 44 120K
R 38 100K
R 02 330K
R 32 4.7K
R 36 4.7K
R 35 4.7K
R 10 2.2K
R 28 120K
R 14 6.8K
R 12 10K
R 40 22K
R 26 100K
R 30 56K
R 22 22K
R 18 2.2K

MATRIX P.C.B. TOP VIEW


SURROUND OUT
E
C 37 0.22 10WV
2 CHAN. R
R OUT R
RF
RB
LB
LF
R OUT L
2 CHAN L
C 37 0.047
C 33 0.47 50WV
Q 05
C 05 10 10WV
C 19 0.47 50WV
D 09
C 35 0.47 50WV
C 29 0.47 50WV
D 10
C 01 1µF 25WV
AMB SW
C 34 0.47 50WV
AMB SW
C 11 330 35WV
Q 03
D 11
C 38 0.22 10WV
C 40 0.22 10WV
D 12
C 36 0.47 50WV
Q 01
LF
C 39 0.22 10WV
D 13
D 14
D 15
D 16
C 17 0.47 50WV
C 03 0.047
Q 06
C 32 0.047
C809 0.0047
+B
SQ OUT
LB
C 23 0.47 50WV
C 21 0.001
C 07 0.022
C 04 0.047
C 25 0.47 50WV
C 30 0.47 50WV
RB
C 13 0.47 50WV
C 28 0.22 10WV
C 27 0.22 10WV
C 18 0.47 50WV
Q 04
Q 02
D 02
D804
RF
C 26 0.47 50WV
D 01
D 03
C 15 0.47 50WV
C 20 0.47 50WV
C 10 0.0022
RT
C 24 0.47 50WV
C 16 0.47 50WV
D 07
C 12 0.0022
C 02 1µF 25WV
D 08
D 05
D 06
C 22 0.001
C 14 0.47 50WV
C 08 0.022
C 06 10 10WV

Q 01 , Q 02 2SC693 (FL) · Q 03 , Q 04 2SA608 (DEF) · Q 05 , Q 06 2SC537 (EF)

D 01 ~ D 08 DS-430 · D 09 ~ D 16 1S188 FM1

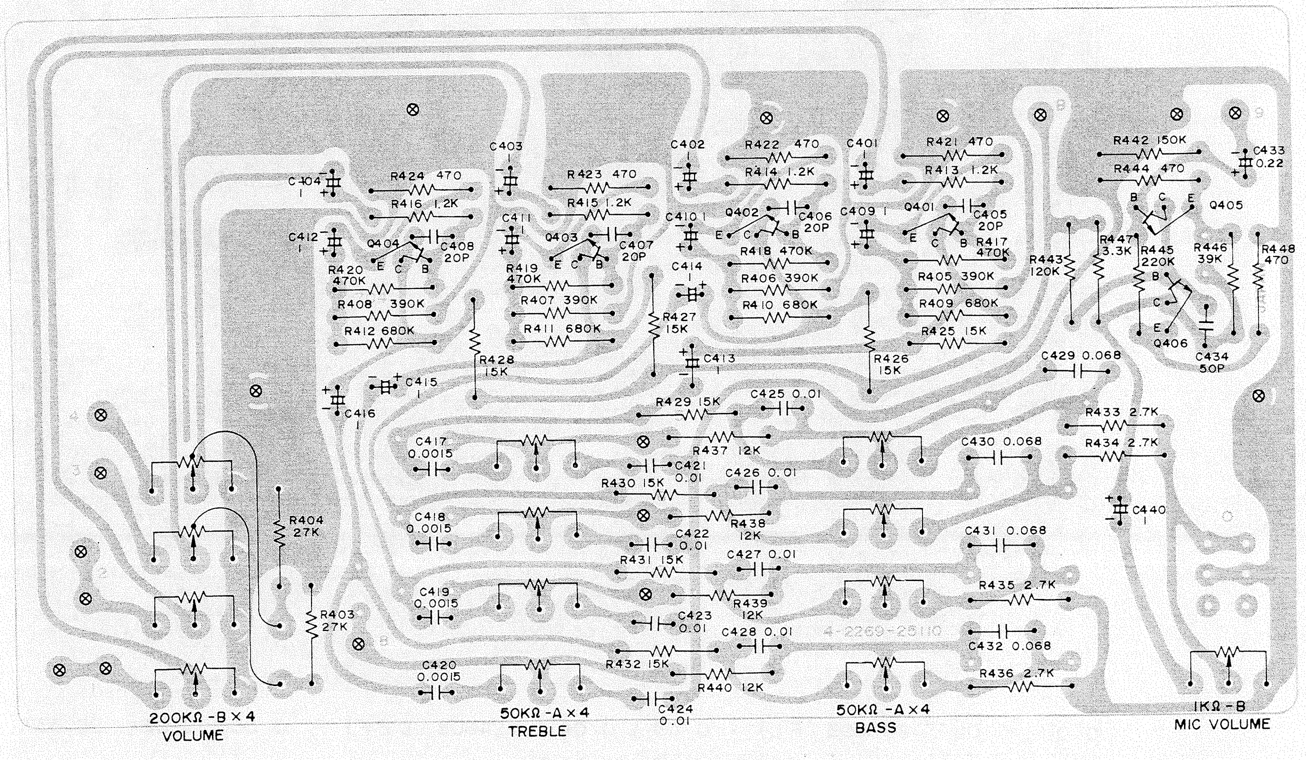
PARTS LIST

Key No.	Part No.	Description	Q'ty
PRE AMP P.C.B. ASSY			
103	131 0 4001 43002	Pre PCB Assy.	1
	4 2229 22991	VR B-200K Master	1
	4 2229 23000	VR A-50K Bass, Treble	2
	4 2229 23670	VR B-1K Mic. Volume	1
		CAPACITORS	
C405,406 407,408		Ceramic 20pF 50V ±10%	4
C434		Ceramic 50pF 50V ±10%	1
C417,418 419,420		Mylar 0.0015µF 50V ±20%	4
C421,422 423,424 425,426 427,428		Mylar 0.01µF 50V ±20%	8
C429,430 431,432		Mylar 0.068µF 50V ±20%	4
C409,410 411,412		Electrolytic 1µF 10V	4
C433		Alsicon 0.22µF 10V ±20%	1
C401,402 403,404 413,414 415,416 440		Alsicon 1µF 25V ±20%	9

Key No.	Part No.	Description	Q'ty
PRE AMP P.C.B. ASSY			
		RESISTORS	
R421,422 423,424 444,448		Carbon 470Ω 1/4W ±10%	6
R413,414 415,416		Carbon 1.2KΩ 1/4W ±10%	4
R433,434 435,436		Carbon 2.7KΩ 1/4W ±10%	4
R447		Carbon 3.3KΩ 1/4W ±10%	1
R437,438 439,440		Carbon 12KΩ 1/4W ±10%	4
R425,426 427,428 429,430 431,432		Carbon 15KΩ 1/4W ±10%	8
R403,404		Carbon 27KΩ 1/4W ±10%	2
R446		Carbon 39KΩ 1/4W ±10%	1
R443		Carbon 120KΩ 1/4W ±10%	1
R442		Carbon 150KΩ 1/4W ±10%	1
R445		Carbon 220KΩ 1/4W ±10%	1
R405,406 407,408		Carbon 390KΩ 1/4W ±10%	4
R417,418 419,420		Carbon 470KΩ 1/4W ±10%	4
R409,410 411,412		Carbon 680KΩ 1/4W ±10%	4
		SEMICONDUCTORS	
Q401,402 403,404 405,406	203 5 5100 69369	Transistor 2SC693 FL, GL (W)	6

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

PRE AMP. P.C.B. BOTTOM VIEW

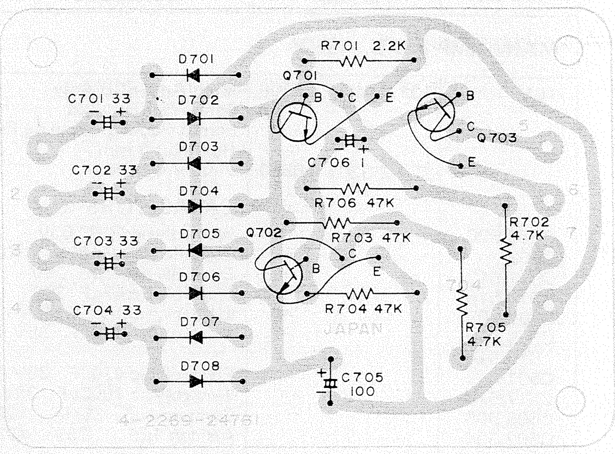

C403
C404
R424 470
R416 1.2K
C412
Q404
C408 20P
R420 470K
R408 390K
R412 680K
R428 15K
C415
C416
R423 470
R415 1.2K
C411
Q403
C407 20P
R419 470K
R407 390K
R411 680K
C402
R422 470
R414 1.2K
C410
Q402
C406 20P
R418 470K
C414
R406 390K
R410 680K
R427 15K
C413
C401
R421 470
R413 1.2K
C409
Q401
C405 20P
R417 470K
R405 390K
R409 680K
R425 15K
R426 15K
R442 150K
R444 470
C433 0.22
Q405
R443 120K
R447 3.3K
R445 220K
R446 39K
R448 470
Q406
C434 50P
C429 0.068
R429 15K
C425 0.01
C417 0.0015
R437 12K
C421 0.01
C426 0.01
R430 15K
R433 2.7K
C430 0.068
R434 2.7K
R404 27K
C418 0.0015
R438 12K
C422 0.01
C427 0.01
R431 15K
C431 0.068
C440
C419 0.0015
R439 12K
C423 0.01
C428 0.01
R435 2.7K
C432 0.068
R403 27K
C420 0.0015
R432 15K
R440 12K
C424 0.01
R436 2.7K
4-2269-25110
200KΩ -B × 4
VOLUME
50KΩ -A × 4
TREBLE
50KΩ -A × 4
BASS
1KΩ -B
MIC VOLUME

Q401– Q406 2SC693

PARTS LIST

Key No.	Part No.	Description	Q'ty
PROTECTOR P.C.B. ASSY			
110	131 0 4001 42500	Protector PCB Assy	1
		CAPACITORS	
C706		Electrolytic 1μF 50V	1
C701,702 703,704		Electrolytic 33μF 10V	4
C705		Electrolytic 100μF 16V	1
		RESISTORS	
R701		Carbon 2.2KΩ 1/4W ±10%	1
R702,705		Carbon 4.7KΩ 1/4W ±10%	2
R703,704 706		Carbon 47K Ω 1/4W ±10%	3
		SEMICONDUCTORS	
D701,702 703,704 705,706 707,708	202 5 9110 18820	Diode 1S188FM1	8
Q701,702	203 5 5100 53660	Transistor 2SC536F	2
Q703	203 5 5100 53670	Transistor 2SC536G	1

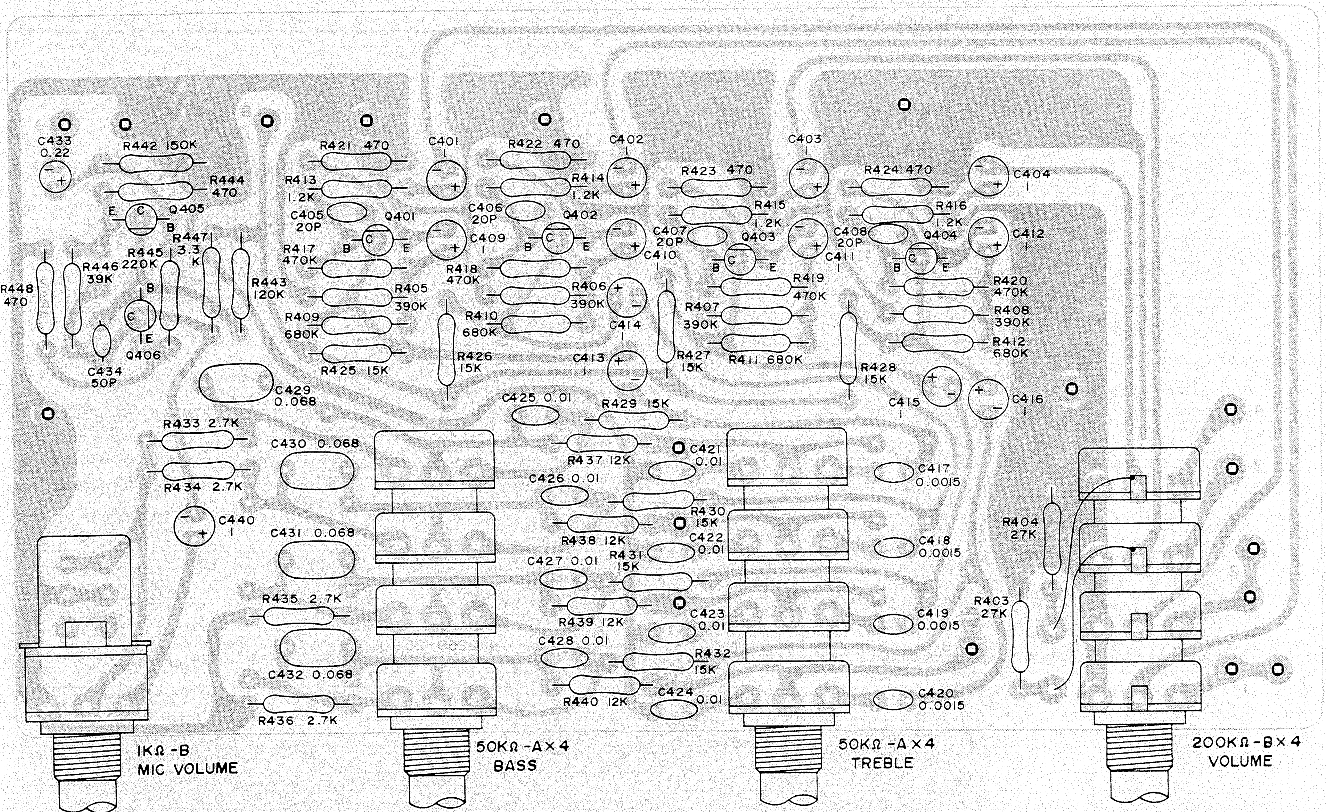
PROTECTOR P.C.B. BOTTOM VIEW


R701 2.2K
D701
Q701
C701 33
D702
B
C
E
B
C
Q703
E
D703
C706 1
C702 33
D704
R706 47K
C703 33
D705
Q702
R703 47K
R702
4.7K
C
B
E
D706
R704 47K
C704 33
D707
R705
4.7K
JAPAN
D708
C705
100
4-2269-2476

Q701 , Q702 2SC536F · Q703 2SC536G
D701 ~ D708 1S188

NOTES:
1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

PRE AMP. P.C.B. TOP VIEW


C433
0.22
R442 150K
R444
470
E
C
Q405
B
R447
3.3
K
R445
220K
R446
39K
R448
470
B
C
E
Q406
C434
50P
R443
120K
R421 470
C401
R413
1.2K
C405
20P
Q401
B
C
E
R417
470K
R405
390K
R409
680K
R425 15K
C429
0.068
R422 470
C402
R414
1.2K
C406
20P
Q402
C409
1
B
C
E
R418
470K
R406
390K
R410
680K
R426
15K
C414
1
C413
1
R423 470
C403
R415
1.2K
C407
20P
Q403
C410
1
B
C
E
R419
470K
R407
390K
R427
15K
R411 680K
R424 470
C404
1
R416
1.2K
C408
20P
Q404
C411
1
C412
1
B
C
E
R420
470K
R408
390K
R412
680K
R428
15K
C415
1
C416
1
R433 2.7K
R434 2.7K
C430 0.068
C440
1
C431 0.068
R435 2.7K
C432 0.068
R436 2.7K
C425 0.01
R429 15K
R437 12K
C421
0.01
C426 0.01
R430
15K
R438 12K
C422
0.01
C427 0.01
R431
15K
R439 12K
C423
0.01
C428 0.01
R432
15K
R440 12K
C424
0.01
C417
0.0015
C418
0.0015
C419
0.0015
C420
0.0015
R404
27K
R403
27K
1KΩ -B
MIC VOLUME
50KΩ -A×4
BASS
50KΩ -A×4
TREBLE
200KΩ -B×4
VOLUME

Q401 ~ Q406 2SC693

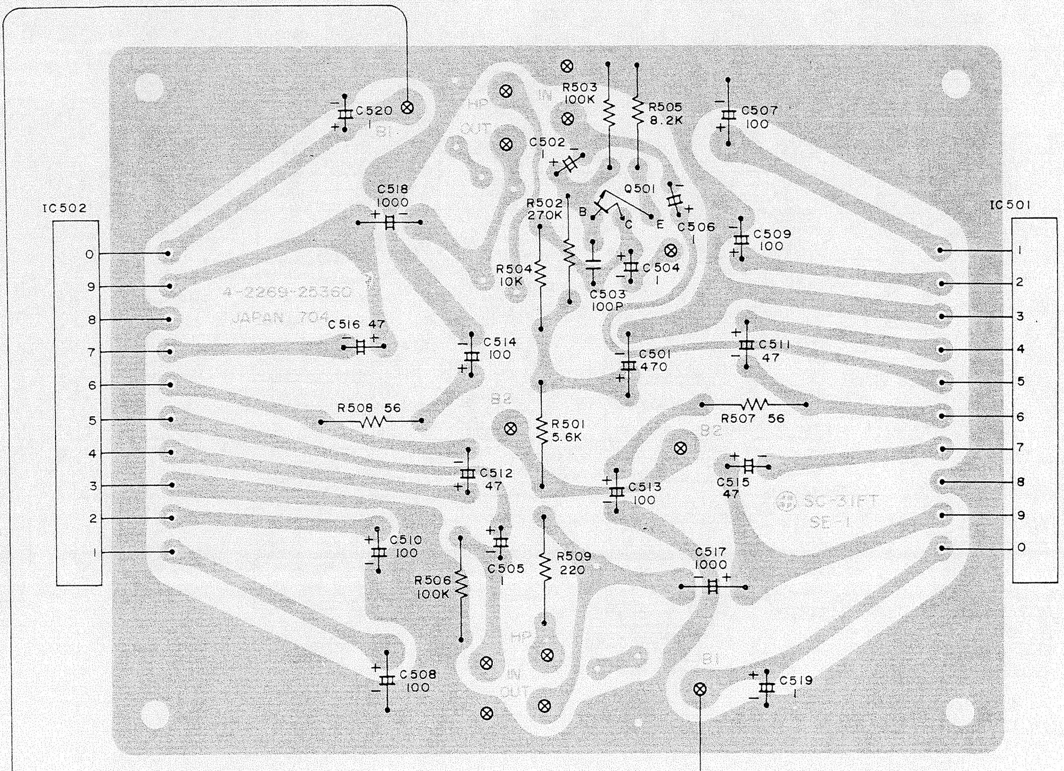
PARTS LIST

Key No.	Part No.	Description	Q'ty
MAIN AMP P.C.B. ASSY			
101	131 0 4001 44400	Main Amp PCB Assy	2
		Screw Pan Hd. 3x8	4
		Screw, Pan Hd. Tapping 3x14	4
		Hex. Nut 3 mm	4
	131 2 6201 16500	Plate Heat Sink	2
		CAPACITORS	
C519,520		Electrolytic 1µF 63V	2
C503		Ceramic 100pF 50V ±10%	1
C511,512		Electrolytic 47µF 25V	2
C515,516		Electrolytic 47µF 35V	2
C507,508		Electrolytic 100µF 63V	2
C509,510 513,514		Electrolytic 100µF 35V	4
C501		Electrolytic 470µF 35V	1
C517,518		Electrolytic 1000µF 35V	2
C505,506		Ceramic 1µF 35V ±20%	2
C502,504		Alsicon 1µF 25V ±20%	2

Key No.	Part No.	Description	Q'ty
MAIN AMP P.C.B. ASSY			
		RESISTORS	
R507,508		Carbon 56Ω 1/4W ±10%	2
R509		Carbon 220Ω 1/4W ±10%	1
R501		Carbon 5.6KΩ 1/4W ±10%	1
R505		Carbon 8.2KΩ 1/4W ±10%	1
R504		Carbon 10KΩ 1/4W ±10%	1
R503,506		Carbon 100KΩ 1/4W ±10%	2
R502		Carbon 270KΩ 1/4W ±10%	1
		SEMICONDUCTORS	
Q501	203 5 5100 69369	Transistor 2SC693 F-L	1
IC501,502	206 5 6240 02410	IC STK0241	2

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

MAIN AMP. P.C.B. BOTTOM VIEW


IC502
IC501
C520
B1
HP
OUT
IN
R503 100K
R505 8.2K
C507 100
C502 1
Q501
B C E
C506 1
C518 1000
R502 270K
C509 100
R504 10K
C504 1
C503 100P
4-2269-25360
JAPAN 704
C516 47
C514 100
C501 470
C511 47
B2
R508 56
R507 56
R501 5.6K
C512 47
C513 100
C515 47
SC-31FT SE-1
C510 100
C505 1
R509 220
C517 1000
R506 100K
C508 100
C519 1
0 9 8 7 6 5 4 3 2 1
1 2 3 4 5 6 7 8 9 0

Q501 2SC693
IC501 , IC502 STK-024

PARTS LIST

Key No.	Part No.	Description	Q'ty
POWER SUPPLY P.C.B. ASSY			
104	131 0 4001 48000	Power Supply PCB Assy	1
		CAPACITORS	
C607		Electrolytic 470μF 10V	1
C605		Electrolytic 470μF 63V	1
C606,609 608,610		Electrolytic 470μF 35V	4
C601,602 603,604		Ceramic 0.01μF 250V +80-20%	4
		RESISTORS	
R606		Carbon 220Ω 1/4W ±10%	1
R607		Carbon 2.2KΩ 1/4W ±10%	1
R602		Oxside Metal Film 220Ω 1W ±10%	1
R604		Oxside Metal Film 390Ω 1W ±10%	1
R603		Oxside Metal Film 470Ω 2W ±10%	1
R605		Oxside Metal Film 560Ω 1W ±10%	1
R601		Oxside Metal Film 820Ω 3W ±10%	1
		SEMICONDUCTORS	
D605		Diode WZ-094	1
D601,602 603,604	202 5 2700 11810	Diode DS118D	4

Key No.	Part No.	Description	Q'ty
METER P.C.B. ASSY			
106	131 0 4001 32001 4 2229 22711	Meter PCB Assy VR C-100K	1 4
		CAPACITORS	
C801,802 803,804		Electrolytic 1μF 50V	4
		RESISTORS	
R805,806 807,808		Carbon 1KΩ 1/4W ±10%	4
R813,814 815,816		Carbon 1.2KΩ 1/4W ±10%	4
R809,810 811,812		Carbon 15KΩ 1/4W ±10%	4
		SEMICONDUCTORS	
D801,802 803,804	202 5 9110 18820	Diode 1S188FM-1	4
D805,806 807,808	205 5 9020 43011	Diode DS430	4

NOTES:
1. Part orders must contain Model Number, Part Number and Description.
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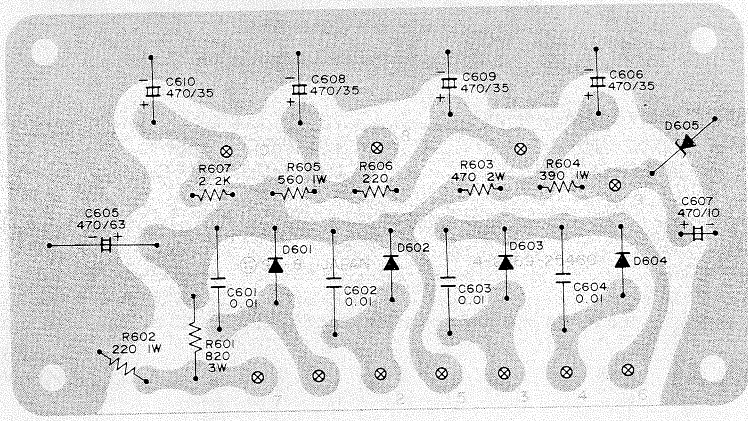
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

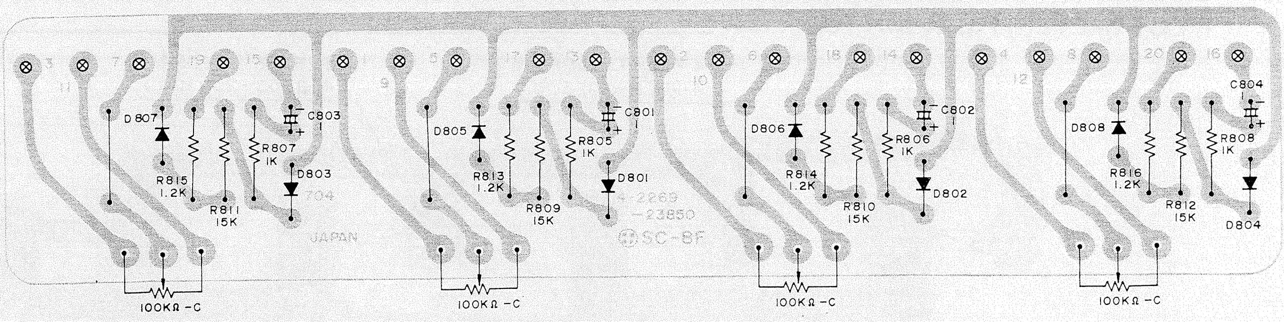
POWER SUPPLY P.C.B. BOTTOM VIEW


C610 470/35
C608 470/35
C609 470/35
C606 470/35
D605
R607 2.2K
R605 560 1W
R606 220
R603 470 2W
R604 390 1W
C607 470/10
C605 470/63
D601
D602
D603
D604
C601 0.01
C602 0.01
C603 0.01
C604 0.01
R602 220 1W
R601 820 3W

D601 ~ D604 DS-118 · D605 WZ-094

METER P.C.B. BOTTOM VIEW

D801 ~ D804 IS188A · D805 ~ D808 DS-430


D807
C803 1
R807 1K
D803
R815 1.2K
R811 15K
D805
C801 1
R805 1K
D801
R813 1.2K
R809 15K
D806
C802 1
R806 1K
D802
R814 1.2K
R810 15K
D808
C804 1
R808 1K
R816 1.2K
R812 15K
D804
100KΩ -C
100KΩ -C
100KΩ -C
100KΩ -C

PARTS LIST

Key No.	Part No.	Description	Q'ty
LOUDNESS P.C.B. ASSY			
109	131 0 4001 34501	Loudness PCB	1
	4 2319 22333	Switch Lever 6P	1
		CAPACITORS	
C903,904		Ceramic 500pF 50V ±10%	2
C901,902		Mylar 0.01μF 50V ±20%	2
		RESISTORS	
R901,902		Carbon 27KΩ 1/4W ±10%	2

Key No.	Part No.	Description	Q'ty
PILOT (DIAL) P.C.B. ASSY			
107	131 0 4001 32101	Pilot Dial PCB	1
	4 2359 20930	Fuse Holder	8
	4 6129 20280	Pilot Lamp	4
	4 6129 20300	Pilot Lamp, 2/4Chl.	2
	4 6129 20301	Pilot Lamp, 2/4 Chl.	1
	4 6129 20302	Pilot Lamp, 2/4 Chl.	2
R1101		Resistor Carbon 10Ω 1/4W ±10%	1
PILOT (METER) P.C.B. ASSY			
108	131 0 4001 32200	Pilot Meter PCB	1
	4 2359 20930	Fuse Holder	8
	4 6129 20280	Pilot Lamp	4

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
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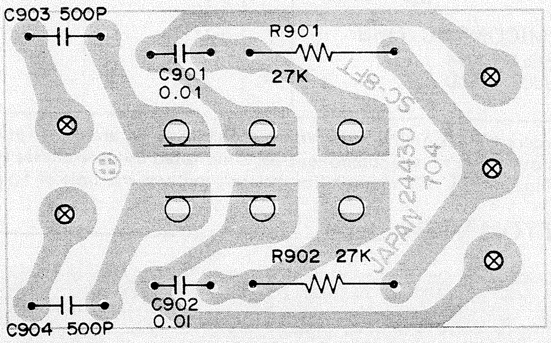
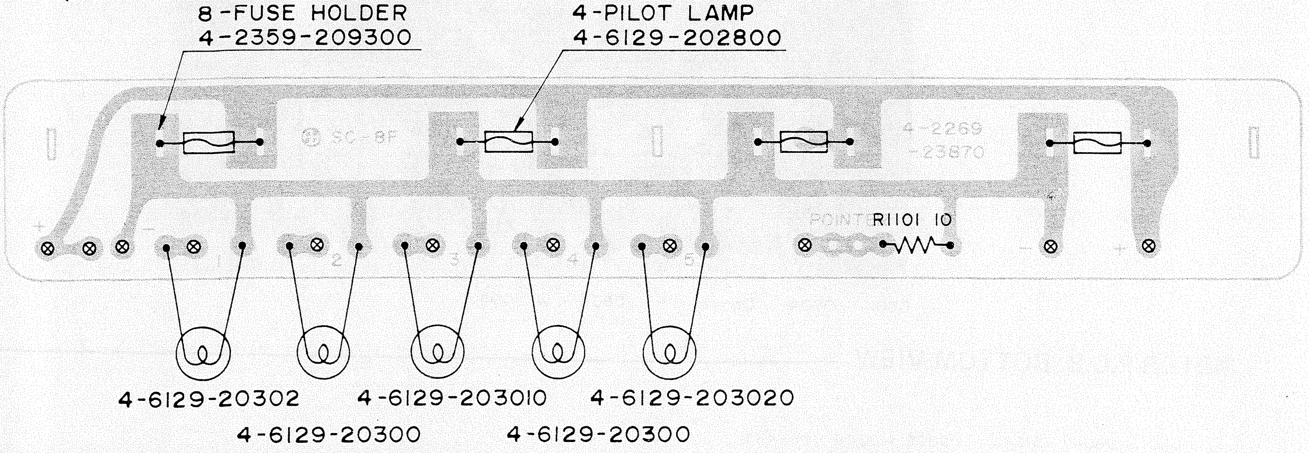
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

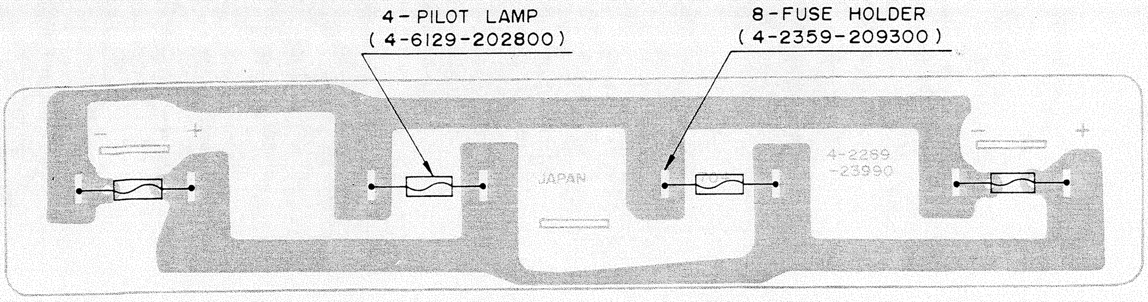
LOUDNESS P.C.B. BOTTOM VIEW


C903 500P
R901
C901
0.01
27K
SC-8FL
JAPAN 24430
704
R902 27K
C902
0.01
C904 500P

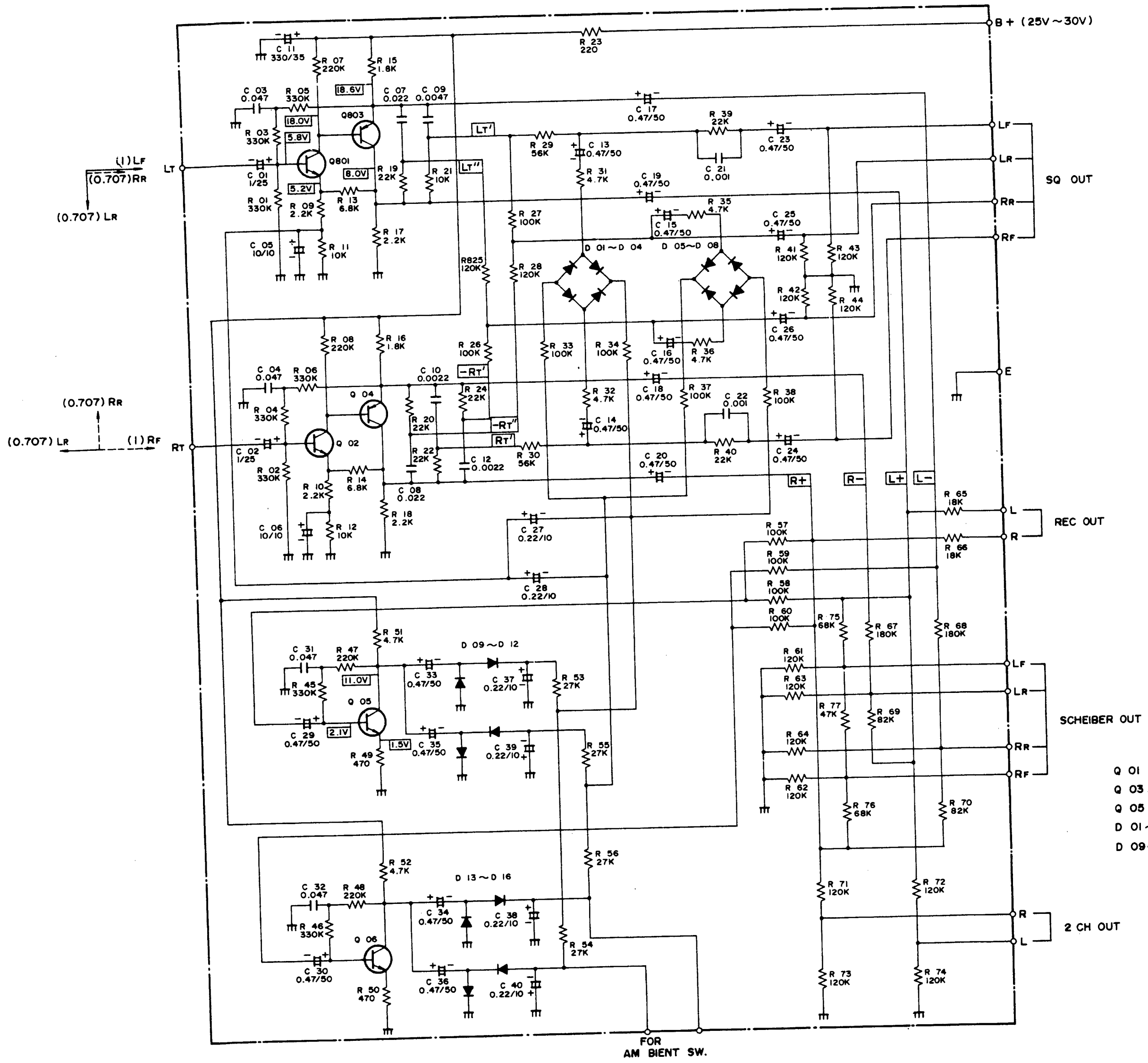
PILOT (DIAL) P.C.B. BOTTOM VIEW


8-FUSE HOLDER
4-2359-209300
4-PILOT LAMP
4-6129-202800
SC-8F
4-2269
-23870
POINTER
R1101 10
1
2
3
4
5
4-6129-20302
4-6129-203010
4-6129-203020
4-6129-20300
4-6129-20300

PILOT (METER) P.C.B. BOTTOM VIEW

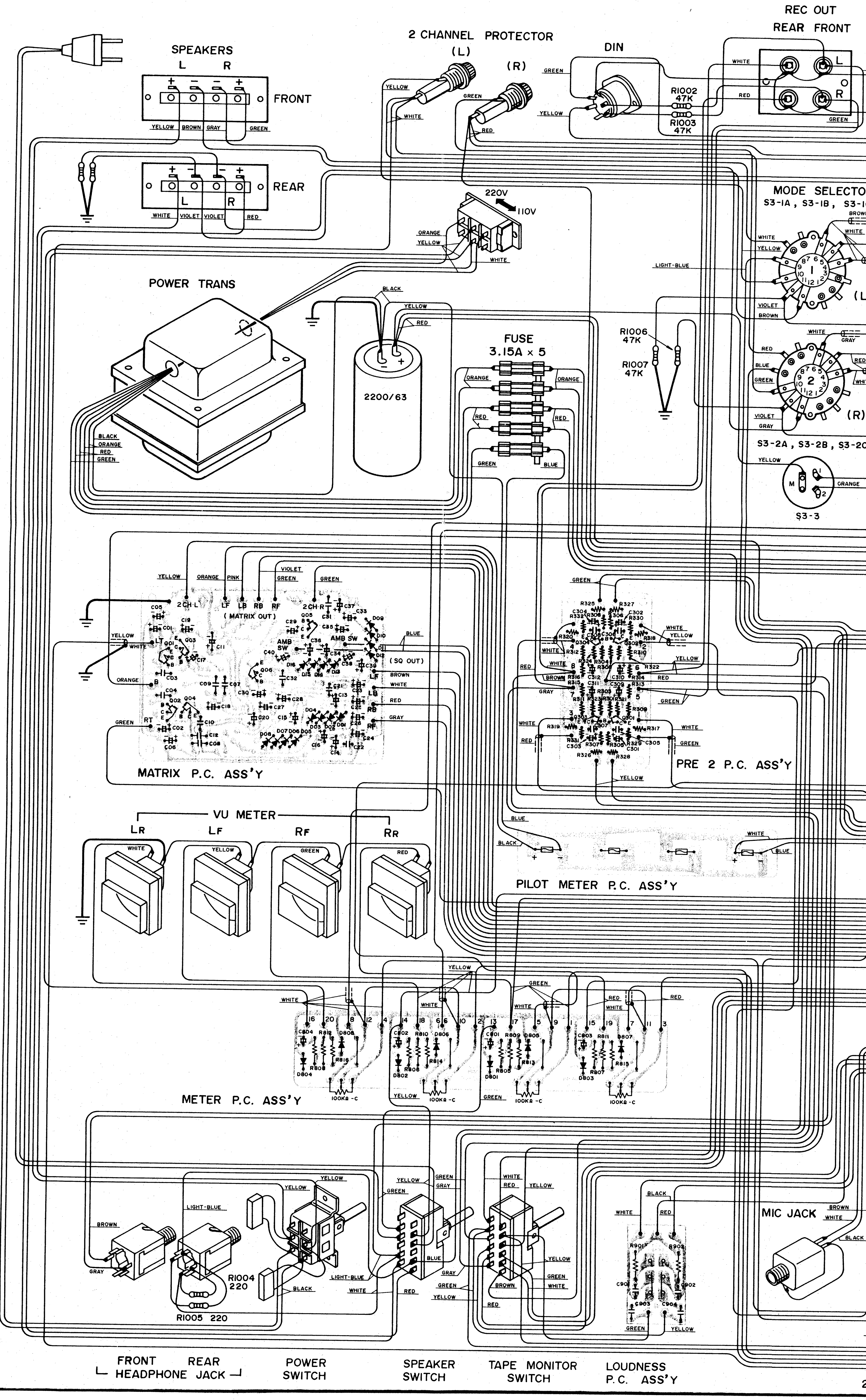

4-PILOT LAMP
(4-6129-202800)
8-FUSE HOLDER
(4-2359-209300)
JAPAN
4-2269
-23990

SCHEMATIC DIAGRAM (MATRIX SECTION)


B + (25V ~ 30V)
LT
RT
(1) LF
(0.707) RR
(0.707) LR
(1) RF
SQ OUT
LF
LR
RR
RF
E
REC OUT
L
R
SCHEIBER OUT
2 CH OUT
FOR AM BIENT SW.
Q801
Q803
Q 02
Q 04
Q 05
Q 06
D 01 ~ D 04
D 05 ~ D 08
D 09 ~ D 12
D 13 ~ D 16
LT'
LT''
-RT'
-RT''
RT'
R+
R−
L+
L−
18.6V
18.0V
5.8V
8.0V
5.2V
11.0V
2.1V
1.5V
R 23 220
C 11 330/35
R 07 220K
R 15 1.8K
C 03 0.047
R 05 330K
C 07 0.022
C 09 0.0047
R 03 330K
C 01 1/25
R 01 330K
R 09 2.2K
R 13 6.8K
R 19 22K
R 21 10K
C 05 10/10
R 11 10K
R 17 2.2K
R825 120K
C 17 0.47/50
R 29 56K
C 13 0.47/50
R 31 4.7K
C 19 0.47/50
R 39 22K
C 21 0.001
C 23 0.47/50
R 35 4.7K
C 15 0.47/50
R 27 100K
R 28 120K
C 25 0.47/50
R 41 120K
R 43 120K
R 42 120K
R 44 120K
C 26 0.47/50
R 08 220K
R 16 1.8K
C 04 0.047
R 06 330K
R 04 330K
C 10 0.0022
R 26 100K
R 24 22K
R 20 22K
C 02 1/25
R 02 330K
R 10 2.2K
R 14 6.8K
R 22 22K
C 12 0.0022
R 30 56K
C 08 0.022
C 06 10/10
R 12 10K
R 18 2.2K
R 33 100K
R 34 100K
C 16 0.47/50
R 36 4.7K
R 32 4.7K
C 18 0.47/50
R 37 100K
C 22 0.001
R 38 100K
C 14 0.47/50
C 20 0.47/50
R 40 22K
C 24 0.47/50
C 27 0.22/10
C 28 0.22/10
R 57 100K
R 59 100K
R 58 100K
R 60 100K
R 65 18K
R 66 18K
R 75 68K
R 67 180K
R 68 180K
R 61 120K
R 63 120K
R 77 47K
R 69 82K
R 64 120K
R 62 120K
R 76 68K
R 70 82K
R 51 4.7K
C 31 0.047
R 47 220K
R 45 330K
C 33 0.47/50
C 37 0.22/10
R 53 27K
C 29 0.47/50
R 49 470
C 35 0.47/50
C 39 0.22/10
R 55 27K
R 56 27K
R 52 4.7K
C 32 0.047
R 48 220K
R 46 330K
C 34 0.47/50
C 38 0.22/10
R 54 27K
C 30 0.47/50
R 50 470
C 36 0.47/50
C 40 0.22/10
R 71 120K
R 72 120K
R 73 120K
R 74 120K

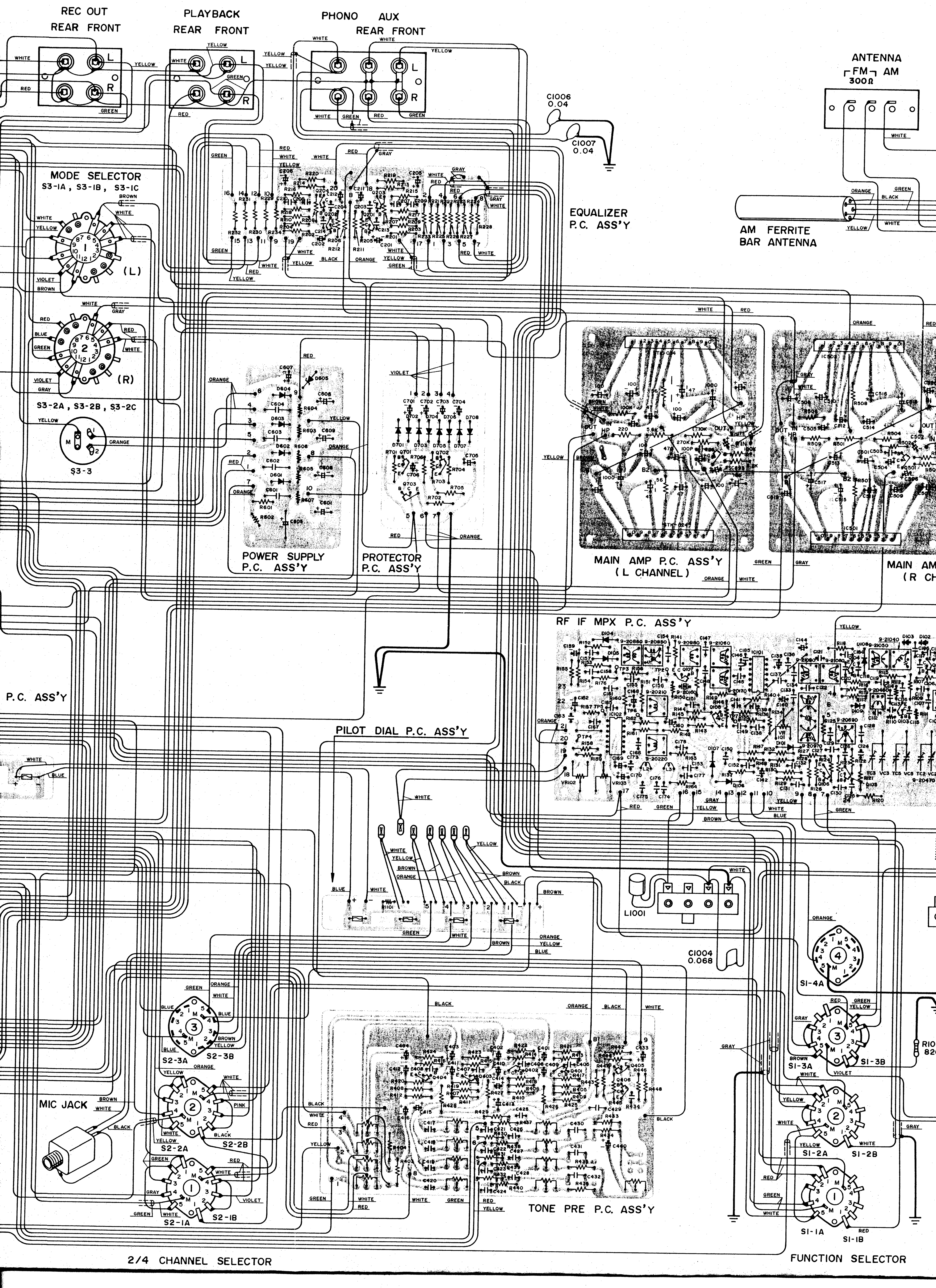
Q 01 , Q 02	2SC693 F(L) , G(L)
Q 03 , Q 04	2SA608 (D,E,F)
Q 05 , Q 06	2SC537 (F,G)
D 01 ~ D 08	DS-430
D 09 ~ D 16	IS188 (FM I)

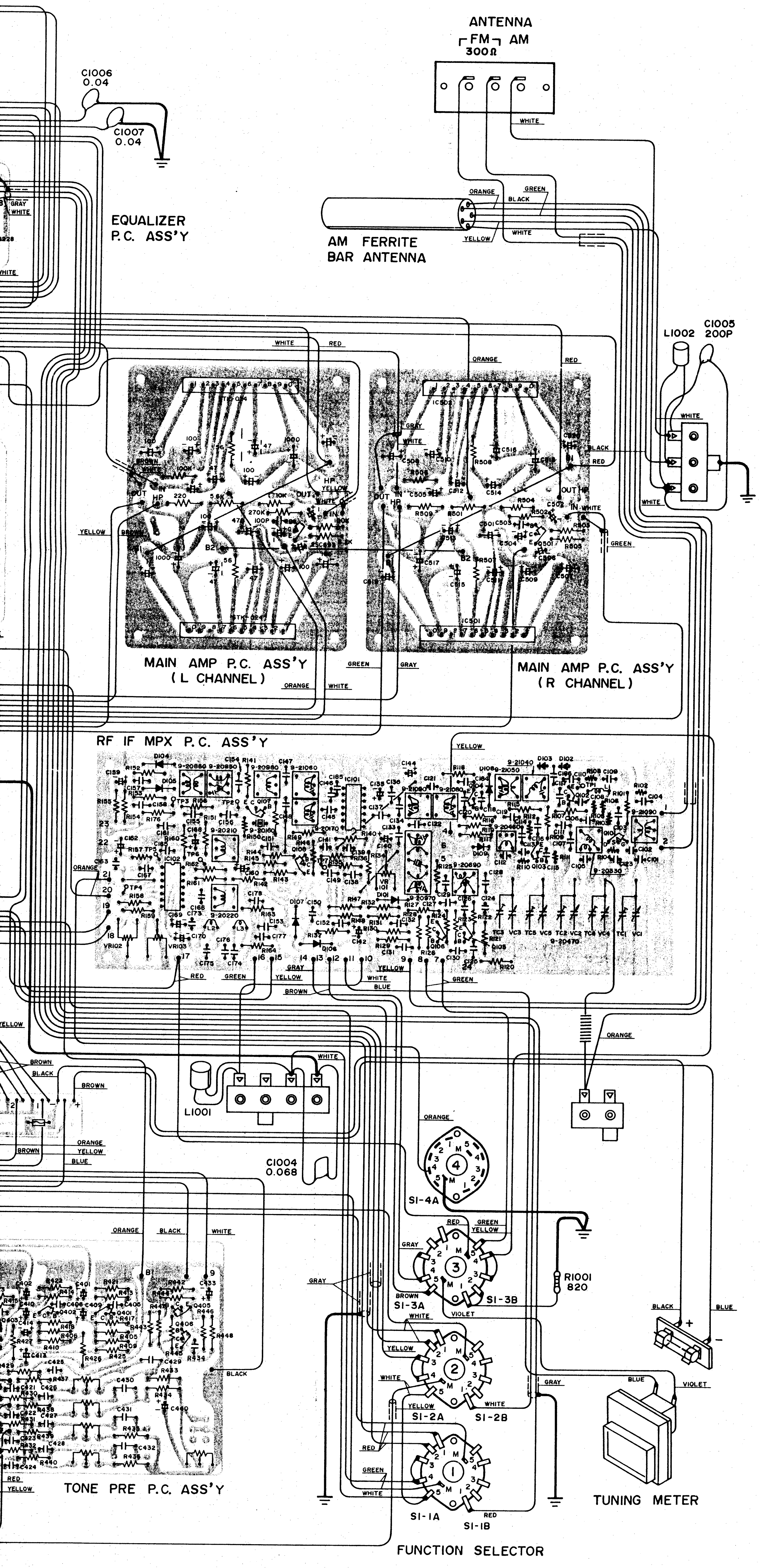
MODEL DCX



REC OUT
REAR FRONT
L
R
2 CHANNEL PROTECTOR
(L)
(R)
DIN
SPEAKERS
L R
FRONT
REAR
R1002 47K
R1003 47K
220V
110V
MODE SELECTO
S3-1A, S3-1B, S3-1
(L
(R)
S3-2A, S3-2B, S3-2C
S3-3
POWER TRANS
2200/63
FUSE
3.15A × 5
R1006 47K
R1007 47K
MATRIX P.C. ASS'Y
2CH-L
LF LB RB RF
(MATRIX OUT)
2CH-R
AMB SW
(SQ OUT)
PRE 2 P.C. ASS'Y
VU METER
LR
LF
RF
RR
PILOT METER P.C. ASS'Y
METER P.C. ASS'Y
100KΩ-C
MIC JACK
R1004 220
R1005 220
FRONT REAR
HEADPHONE JACK
POWER SWITCH
SPEAKER SWITCH
TAPE MONITOR SWITCH
LOUDNESS P.C. ASS'Y
YELLOW
WHITE
GREEN
RED
BROWN
GRAY
VIOLET
ORANGE
BLACK
BLUE
PINK
LIGHT-BLUE

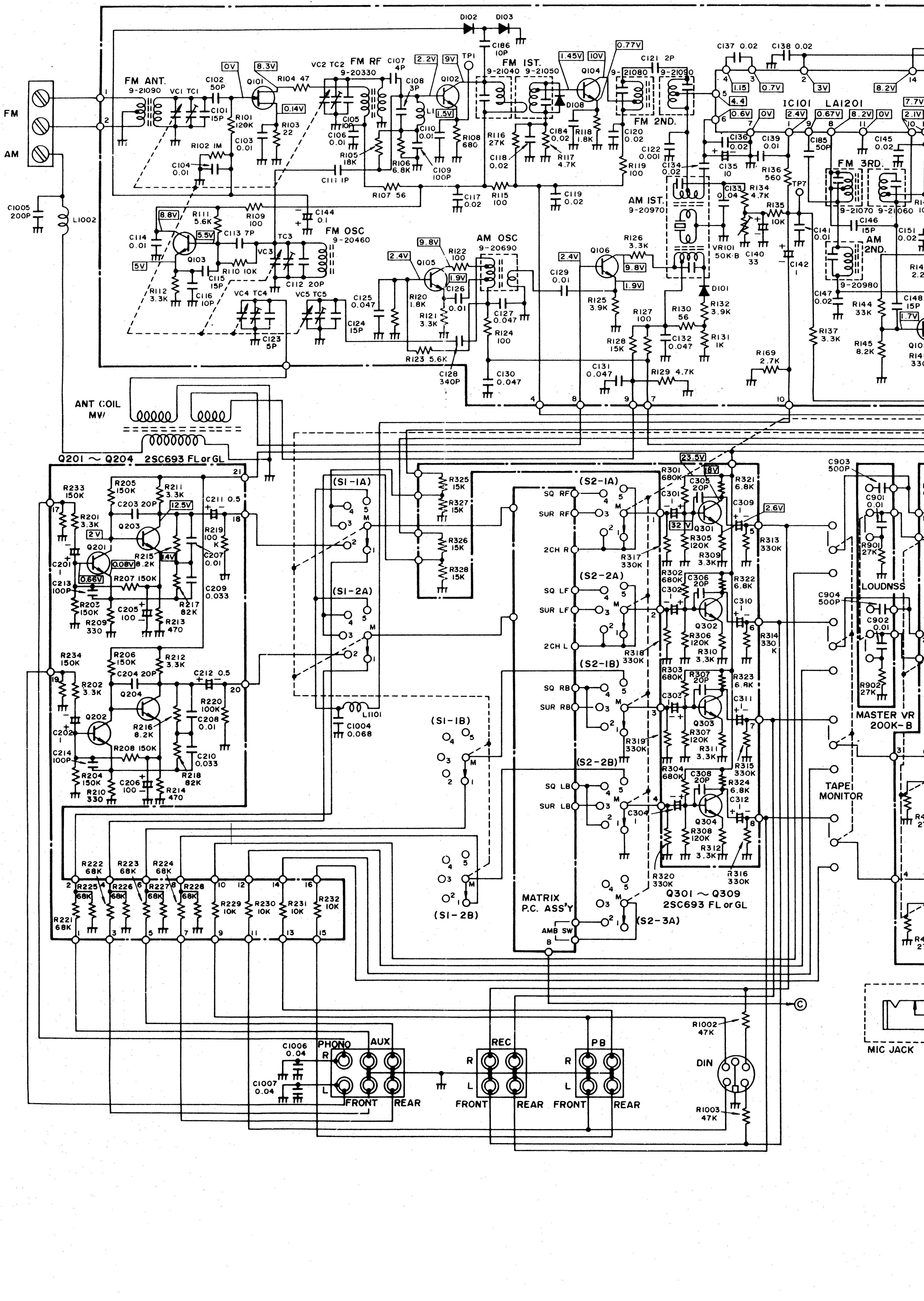
MODEL DCX3300KB WIRING DIAGRAM


REC OUT
REAR FRONT
PLAYBACK
REAR FRONT
PHONO AUX
REAR FRONT
ANTENNA
FM AM
300Ω
C1006
0.04
C1007
0.04
MODE SELECTOR
S3-1A, S3-1B, S3-1C
(L)
(R)
S3-2A, S3-2B, S3-2C
S3-3
EQUALIZER
P.C. ASS'Y
AM FERRITE
BAR ANTENNA
POWER SUPPLY
P.C. ASS'Y
PROTECTOR
P.C. ASS'Y
MAIN AMP P.C. ASS'Y
(L CHANNEL)
MAIN AM
(R CH
RF IF MPX P.C. ASS'Y
P.C. ASS'Y
PILOT DIAL P.C. ASS'Y
L1001
C1004
0.068
S1-4A
S1-3A
S1-3B
S1-2A
S1-2B
S1-1A
S1-1B
FUNCTION SELECTOR
S2-3A
S2-3B
MIC JACK
S2-2A
S2-2B
S2-1A
S2-1B
TONE PRE P.C. ASS'Y
2/4 CHANNEL SELECTOR


ANTENNA
FM
300Ω
AM
C1006
0.04
C1007
0.04
EQUALIZER
P.C. ASS'Y
AM FERRITE
BAR ANTENNA
ORANGE
GREEN
BLACK
WHITE
YELLOW
L1002
C1005
200P
RED
GRAY
BROWN
MAIN AMP P.C. ASS'Y
(L CHANNEL)
MAIN AMP P.C. ASS'Y
(R CHANNEL)
RF IF MPX P.C. ASS'Y
BLUE
L1001
C1004
0.068
S1-4A
R1001
820
S1-3A
S1-3B
VIOLET
S1-2A
S1-2B
S1-1A
S1-1B
TONE PRE P.C. ASS'Y
TUNING METER
FUNCTION SELECTOR

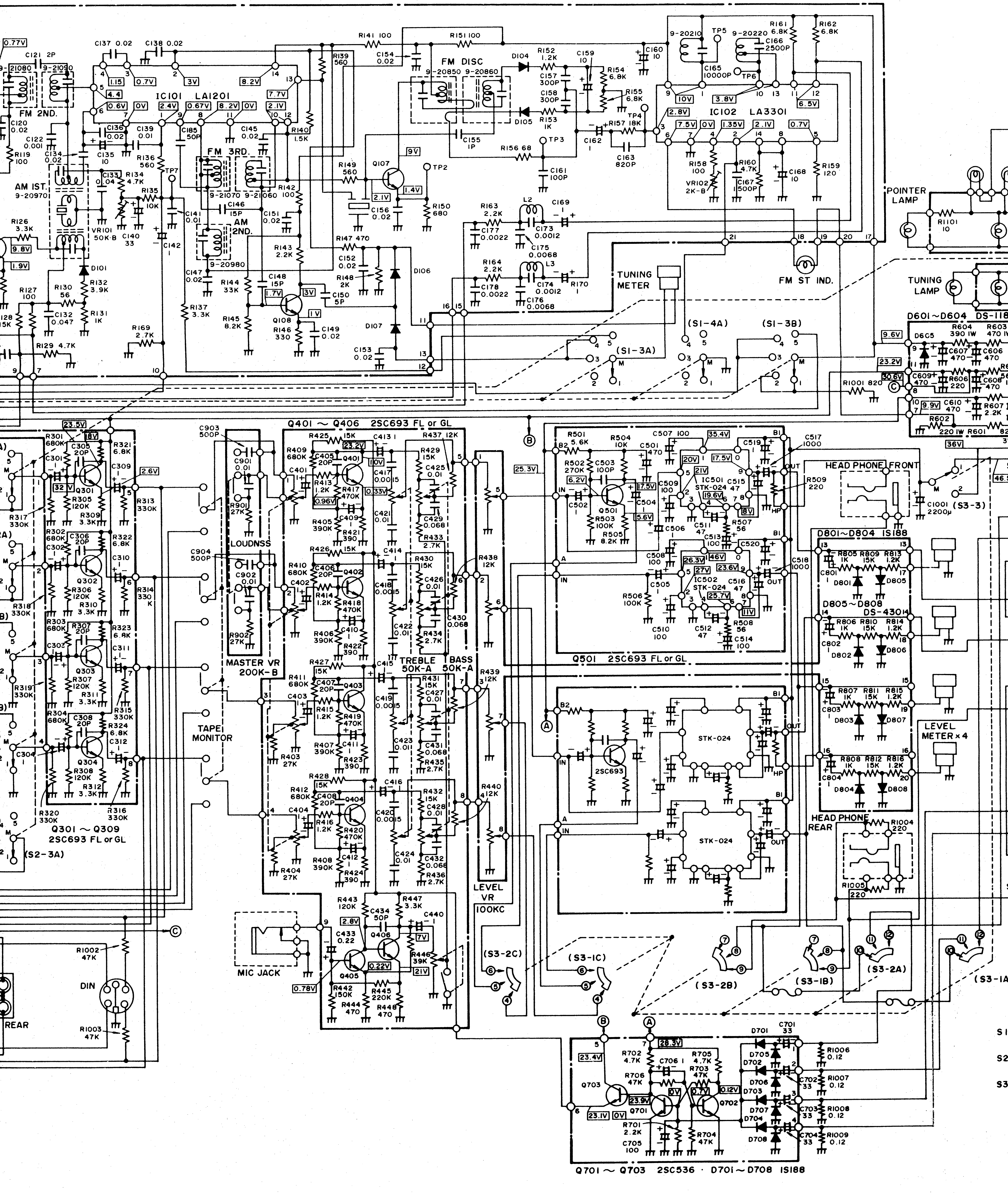
MODEL DCX330

Q101 2SK41 · Q102 2SC668 · Q103 2SC930 · Q104 2SC930 · Q105 2SC536 · Q106 2SC929 · Q107, Q108


FM
AM
FM ANT.
9-21090
C1005 200P
L1002
D102
D103
C186 10P
FM RF
9-20330
FM 1ST.
9-21040
9-21050
FM 2ND.
9-21080
9-21090
TP1
Q101
Q102
Q103
Q104
Q105
Q106
D108
FM OSC
9-20460
AM OSC
9-20690
AM 1ST.
9-20970
VR101 50K-B
D101
TP7
IC101
LA1201
FM 3RD.
9-21070
9-21060
AM 2ND.
9-20980
ANT COIL MV/
Q201 ~ Q204 2SC693 FL or GL
(S1-1A)
(S1-2A)
(S1-1B)
(S1-2B)
(S2-1A)
(S2-2A)
(S2-1B)
(S2-2B)
(S2-3A)
SQ RF
SUR RF
2CH R
SQ LF
SUR LF
2CH L
SQ RB
SUR RB
SQ LB
SUR LB
MATRIX P.C. ASS'Y
AMB SW
L1101
C1004 0.068
Q301 ~ Q309 2SC693 FL or GL
LOUDNSS
MASTER VR 200K-B
TAPE MONITOR
MIC JACK
PHONO
AUX
REC
PB
FRONT
REAR
DIN
R1002 47K
R1003 47K
C1006 0.04
C1007 0.04
C

MODEL DCX3300KB SCHEMATIC DIAGRAM

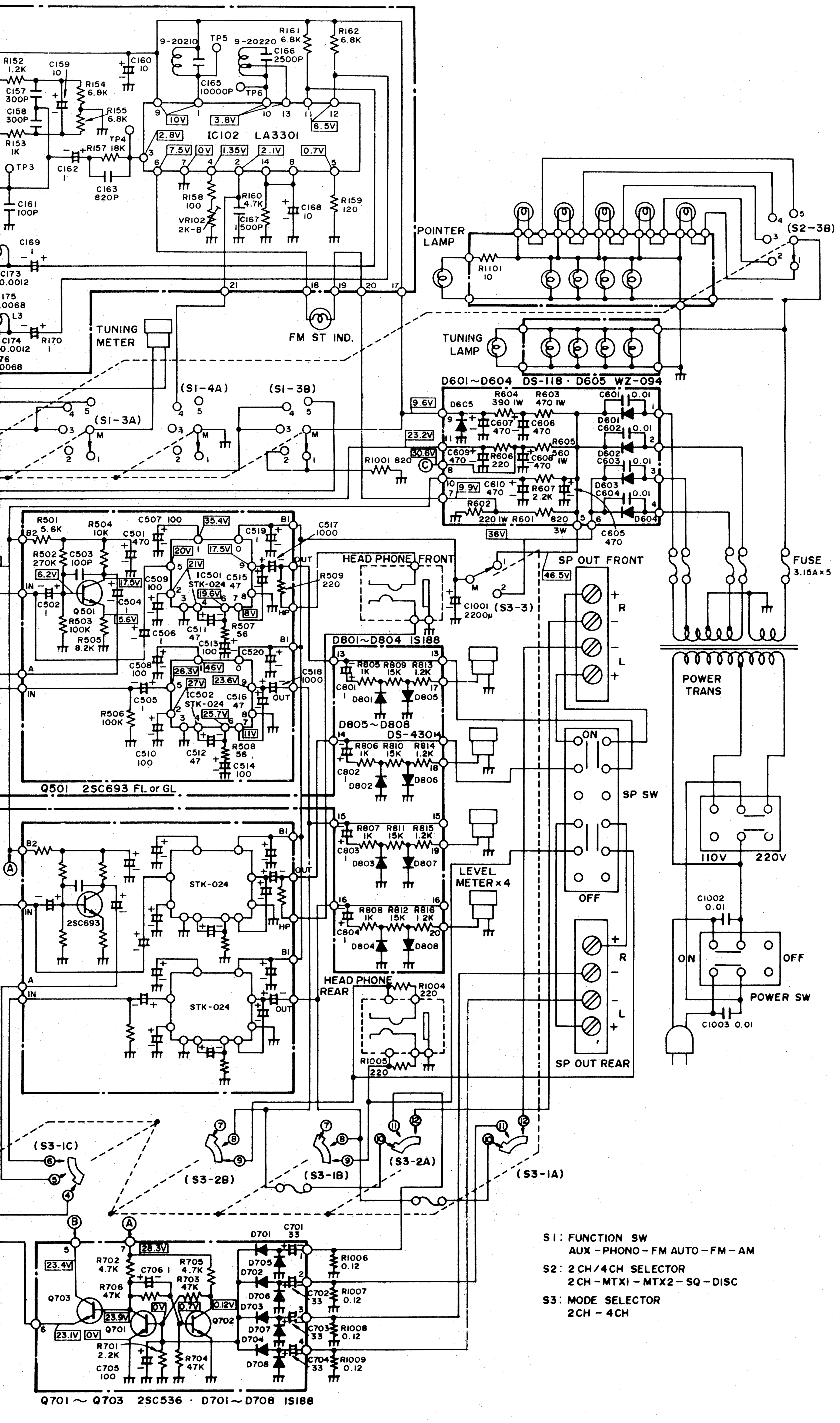
5 2SC536 · Q106 2SC929 · Q107, Q108 2SC930 · D101 ~ D107 1S188 · D108 DS-442



FM 2ND.
9-21080
9-21090
C121 2P
C137 0.02
C138 0.02
IC101 LA1201
FM 3RD.
9-21070
9-21060
AM 2ND.
9-20980
AM IST.
9-20970
VR101 50K-B
D101
R141 100
R151 100
R139 560
C154 0.02
FM DISC
9-20850
9-20860
D104
D105
R152 1.2K
C159 10
R154 6.8K
R155 6.8K
C157 300P
C158 300P
R153 1K
TP4
R157 18K
TP3
R156 68
C155 1P
C162 1
C163 820P
C161 100P
Q107
TP2
R149 560
R150 680
C156 0.02
Q108
R146 330
R145 8.2K
R144 33K
C148 15P
C150 5P
C149 0.02
D106
D107
C153 0.02
R147 470
C152 0.02
R148 2K
L2
L3
R163 2.2K
R164 2.2K
C169 1
C177 0.0022
C178 0.0022
C173 0.0012
C174 0.0012
C175 0.0068
C176 0.0068
R170 1
TUNING METER
9-20210
9-20220
TP5
TP6
C165 10000P
C166 2500P
C160 10
R161 6.8K
R162 6.8K
IC102 LA3301
R158 100
VR102 2K-B
R160 4.7K
C167 1500P
C168 10
R159 120
FM ST IND.
POINTER LAMP
R1101 10
TUNING LAMP
D601 ~ D604 DS-118
R604 390 1W
R603 470 1W
D605
C607 470
C606 470
C609 470
R606 220
C608 470
C610 470
R607 2.2K
R602 220 1W
R601
R1001 820
(S1-4A)
(S1-3B)
(S1-3A)
Q301 ~ Q309 2SC693 FL or GL
R301 680K
R302 680K
R303 680K
R304 680K
C305 20P
C306 20P
C307 20P
C308 20P
R305 120K
R306 120K
R307 120K
R308 120K
R309 3.3K
R310 3.3K
R311 3.3K
R312 3.3K
R313 330K
R314 330K
R315 330K
R316 330K
R317 330K
R318 330K
R319 330K
R320 330K
R321 6.8K
R322 6.8K
R323 6.8K
R324 6.8K
Q301
Q302
Q303
Q304
(S2-3A)
C903 500P
C904 500P
C901 0.01
C902 0.01
R901 27K
R902 27K
LOUDNSS
MASTER VR 200K-B
TAPE MONITOR
Q401 ~ Q406 2SC693 FL or GL
Q401
Q402
Q403
Q404
Q405
Q406
R409 680K
R410 680K
R411 680K
R412 680K
R413 1.2K
R414 1.2K
R415 1.2K
R416 1.2K
R417 470K
R418 470K
R419 470K
R420 470K
R405 390K
R406 390K
R407 390K
R408 390K
R421 390
R422 390
R423 390
R424 390
R403 27K
R404 27K
R425 15K
R426 15K
R427 15K
R428 15K
R429 15K
R430 15K
R431 15K
R432 15K
R433 2.7K
R434 2.7K
R435 2.7K
R436 2.7K
R437 12K
R438 12K
R439 12K
R440 12K
C425 0.01
C426 0.01
C427 0.01
C428 0.01
C429 0.068
C430 0.068
C431 0.068
C432 0.068
C417 0.0015
C418 0.0015
C419 0.0015
C420 0.0015
C421 0.01
C422 0.01
C423 0.01
C424 0.01
TREBLE 50K-A
BASS 50K-A
LEVEL VR 100KC
R443 120K
R447 3.3K
C434 50P
C440 1
C433 0.22
R446 39K
R442 150K
R445 220K
R444 470
R448 470
MIC JACK
R1002 47K
R1003 47K
DIN
REAR
Q501 2SC693 FL or GL
R501 5.6K
R502 270K
R503 100K
R504 10K
R505 8.2K
R506 100K
C501 470
C503 100P
C507 100
IC501 STK-024
IC502 STK-024
C515 47
C516 47
R507 56
R508 56
C517 1000
C518 1000
R509 220
C514 100
STK-024
2SC693
HEAD PHONE FRONT
HEAD PHONE REAR
C1001 2200μ
(S3-3)
R1004 220
R1005 220
D801 ~ D804 1S188
D805 ~ D808 DS-430
R805 1K
R806 1K
R807 1K
R808 1K
R809 15K
R810 15K
R811 15K
R812 15K
R813 1.2K
R814 1.2K
R815 1.2K
R816 1.2K
LEVEL METER × 4
(S3-2C)
(S3-1C)
(S3-2B)
(S3-1B)
(S3-2A)
(S3-1A)
Q701 ~ Q703 2SC536 · D701 ~ D708 1S188
Q701
Q702
Q703
R701 2.2K
R702 4.7K
R703 47K
R704 47K
R705 4.7K
R706 47K
C705 100
C706 1
C701 33
C702 33
C703 33
C704 33
R1006 0.12
R1007 0.12
R1008 0.12
R1009 0.12
23.5V
18V
32V
2.6V
25.3V
35.4V
36V
9.6V
23.2V
30.6V
9.9V
28.3V
23.4V
23.9V
23.1V

GRAM

442


IC102 LA3301
9-20210
9-20220
TP5
TP6
TP3
TP4
R161 6.8K
R162 6.8K
C166 2500P
C165 10000P
R152 1.2K
C159 10
C160 10
R154 6.8K
R155 6.8K
C157 300P
C158 300P
R153 1K
R157 18K
C162 1
C163 820P
C161 100P
R158 100
VR102 2K-B
R160 4.7K
C167 1500P
C168 10
R159 120
10V
3.8V
6.5V
2.8V
7.5V
0V
1.35V
2.1V
0.7V
C169 1
C173 0.0012
C174 0.0012
R170 1
TUNING METER
FM ST IND.
POINTER LAMP
R1101 10
TUNING LAMP
(S2-3B)
(S1-4A)
(S1-3B)
(S1-3A)
D601~D604 DS-118 · D605 WZ-094
R604 390 1W
R603 470 1W
R605 560 1W
R606 220
R607 2.2K
R602 220 1W
R601 820 3W
C601 0.01
C602 0.01
C603 0.01
C604 0.01
C605 470
C606 470
C607 470
C608 470
C609 470
C610 470
9.6V
23.2V
30.6V
9.9V
36V
R1001 820
FUSE 3.15A×5
POWER TRANS
110V
220V
C1002 0.01
C1003 0.01
POWER SW
ON
OFF
R501 5.6K
R502 270K
R503 100K
R504 10K
R505 8.2K
C501 470
C502 1
C503 100P
C504 1
C507 100
C517 1000
C518 1000
R509 220
IC501 STK-024
IC502 STK-024
35.4V
20V
21V
17.5V
19.6V
6.2V
5.6V
8V
46V
26.3V
27V
23.6V
25.7V
11V
R506 100K
R507 56
R508 56
C505
C506
C508 100
C509 100
C510 100
C511 47
C512 47
C513 100
C514 100
C515 47
C516 47
C519 1
C520 1
Q501 2SC693 FL or GL
HEAD PHONE FRONT
C1001 2200μ
(S3-3)
SP OUT FRONT
46.5V
D801~D804 1S188
D805~D808 DS-430
R805 1K
R806 1K
R807 1K
R808 1K
R809 15K
R810 15K
R811 15K
R812 15K
R813 1.2K
R814 1.2K
R815 1.2K
R816 1.2K
C801 1
C802 1
C803 1
C804 1
LEVEL METER×4
SP SW
STK-024
2SC693
HEAD PHONE REAR
R1004 220
R1005 220
SP OUT REAR
(S3-1C)
(S3-2B)
(S3-1B)
(S3-2A)
(S3-1A)
Q701
Q702
Q703
R701 2.2K
R702 4.7K
R703 47K
R704 47K
R705 4.7K
R706 47K
C701 33
C702 33
C703 33
C704 33
C705 100
C706 1
R1006 0.12
R1007 0.12
R1008 0.12
R1009 0.12
28.3V
23.4V
23.9V
23.1V
0V
0.7V
0.12V
Q701 ~ Q703 2SC536 · D701~D708 1S188

S1: FUNCTION SW
AUX-PHONO-FM AUTO-FM-AM

S2: 2CH/4CH SELECTOR
2CH-MTX1-MTX2-SQ-DISC

S3: MODE SELECTOR
2CH-4CH